DOCUMENT RESUME

ED 316 491 SO 020 688

AUTHOR Backler, Alan L.
TITLE Global Geography. A Teacher's Guide.
INSTITUTION Agency for Instructional Technology, Bloomington, IN.
PUB DATE 88
NOTE 64p.; Photographs may not reproduce clearly.
PUB TYPE Guides - Classroom Use - Guides (For Teachers) (052)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Area Studies; Curriculum Enrichment; *Geography Instruction; *Global Approach; Instructional Materials; Intermediate Grades; Junior High Schools; Resource Units; Teaching Guides; Videotape Recordings; *World Geography
IDENTIFIERS Africa; Asia; Australia; Central America; Europe; Japan; New Zealand; South America; USSR

ABSTRACT

Intended for use with grades six through nine, "Global Geography" is a series of ten 15-minute video programs that help students think their way through important issues and increase their understanding of world geography. The programs fit easily into normal classroom schedules and support the content of most existing course sequences. This guide is designed to help teachers use the video programs for their fullest possible instructional value. Each of the lessons, keyed to the video programs, contains a summary of the conceptual and thematic foundations of the video program, a summary of what appears on the screen, a glossary of key terms, and suggestions for activities before and during the program to help students understand the issues that have been introduced. In addition, each lesson includes discussion questions for use after viewing and ideas for activities with local application, so teachers can help students understand how the fundamental themes of world geography have relevance in their own communities. A list of supplementary readings and video materials is included as are reproducible handouts to go with the lessons. A fold-out correlation matrix relates each "Global Geography" program to chapters in the geography textbooks most commonly used in middle and junior high schools. Black and white photographs are included. (JB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED316491

Teacher's Guide

GLOBAL GEOGRAPHY

SO 020 688

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

W. B. JOHNSTON

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Agency for Instructional Technology

BEST COPY AVAILABLE

Participating Agencies

Global Geography's origin is a Wisconsin Educational Television Network needs-assessment survey and concept paper. The project was funded and developed by a consortium of education agencies throughout the United States and Canada in association with the Agency for Instructional Technology (AIT).

Alaska State Department of Education
Alberta Education
Arizona
    ASSET (Arizona School Service Through Educational Technology), Tempe
Arkansas Educational Television Network
British Columbia Department of Education
California Department of Education
Connecticut Department of Education
Delaware Department of Public Instruction
Florida State Department of Education
Georgia Department of Education
Hawaii Department of Education
Illinois State Board of Education
Indiana Department of Education
Iowa Public Television
Kentucky Educational Television
Maryland State Department of Education
Massachusetts Educational Television
Michigan
    Michigan Coalition of Regional Educational Media Centers
Minnesota Department of Education
Mississippi Authority for Educational Television
Missouri
    Missouri Coalition of School Districts and Television Stations KOZK/KOZJ
Nebraska State Department of Education
New Jersey Network
New Mexico Media Network
New York
    New York State Education Department/Public Broadcasting Program
    The New York Network Public Television Stations
North Carolina Department of Public Instruction
Ohio Department of Education
Ontario Educational Communications Authority
Oregon
    Oregon Video Consortium
Pennsylvania
    Pennsylvania Video Coalition of Intermediate Units
Radio Quebec
Saskatchewan Department of Education
South Carolina State Department of Education
South Dakota Department of Education and Cultural Affairs
Tennessee Public Television Council
Texas
    Texas Regional Education Service Centers
Utah State Office of Education
Vermont ETV
Virginia Department of Education
Washington
    Washington Video Coalition of Educational Service Districts
    TV ETC, Spokane
Wisconsin Educational Communications Board

A Teacher's Guide to

GLOBAL GEOGRAPHY

***Global Geography* is a series of ten 15-minute programs in world geography for grades six through nine.**

Chief Content Consultants
Alan L. Backler
Joseph P. Stoltman

Guide Writer
Alan L. Backler

©1988
Agency for Instructional Technology
All rights reserved.

This guide or any part of it, except for the student work sheets, may not be reproduced without written permission.

All inquiries should be directed to AIT, Box A, Bloomington, Indiana 47402

Contents

Introduction 4
Lesson Objectives 6
South Asia: Why Are Forests Disappearing? 8
Southeast Asia: How Does Change Occur? 11
Japan: Why Does Trade Occur? 14
Soviet Union: Why Does Planning Occur? 18
East Asia: Why Do People Live Where They Do? 21
Australia/New Zealand: Why Is the World Shrinking? 24
North Africa/Southwest Asia: What Are the Consequences of Change? 27
Africa—South of the Sahara: How Do People Use Their Environment? 31
Central and South America: Why Do People Move? 34
Europe: How Do People Deal with Natural Hazards? 37
Reproducible Handouts 40
Further Resources 52

The *Global Geography* Program Outline and Textbook Correlation Matrix is the center fold-out section.

Global Geography has been endorsed by the Commission on Geographical Education of the International Geographical Union; the Executive Board of the National Council for Geographic Education; and the Geographic Education National Implementation Project, a joint project of the National Council for Geographic Education, the Association of American Geographers, the American Geographical Society, and the National Geographic Society.

This project's origin is a Wisconsin Educational Television Network needs-assessment survey and concept paper.

Introduction

Today's young people—the adults of tomorrow—will soon be responsible for making informed and rational decisions about issues affecting the interactions of the world's inhabitants and the relationship of all humans to the earth. They must understand how their actions influence the lives of people living in other regions of the world and how the actions of those people affect them. They must know where and why events are occurring if they are to apply their intelligence and moral sensitivity to improving the quality of human life on this planet. They must, in short, receive a sound education in global geography.

Such an education provides the perspectives, information, concepts, and skills essential to understand ourselves, our relationships to the environment that surrounds us, and our interdependence with other people in the world. It reinforces and extends the processes of critical thinking and problem solving that are applicable to all parts of the curriculum.*

This series of ten lessons for use in middle and junior high schools will help students think their way through important issues and increase their understanding of world geography. On a broader scale, it will help them become more effective decision makers and ultimately more responsible citizens.

Each lesson consists of a 15-minute video program and accompanying printed material to facilitate classroom follow-up activities. The 15-minute programs fit easily into normal classroom schedules and support the content of most existing course sequences. Each program is designed to be used individually and does not depend on other programs for its successful use. As a result, the programs are an easily scheduled and flexible means of strengthening existing instruction in global geography.

The printed material includes a teacher's guide. This contains an introduction to the series, objectives for each lesson, a summary, a glossary of key terms, teaching suggestions, follow-up activities, community applications, and additional resources for each of the ten programs. Reproducible maps and handouts are also provided.

Most geography textbooks and courses emphasize world regions. This series respects this approach and each of the ten programs focuses on a world region. Within this regional emphasis, special attention is given to one of the topics typically considered in geography textbooks. The programs and accompanying teacher's guide complement the most current thinking about the teaching of geography, and they reinforce efforts being made nationally to help students understand the investigative and analytical aspects of geography. In addition, the lessons will support instruction that students receive in mathematics, science, and language arts.

The target audience—students in middle and junior high school—possesses the cognitive and affective maturity needed to acquire an international perspective; children at this level have not yet erected barriers to global understanding. Although these programs are specifically designed for use in world geography courses, they can be used to develop the geographic dimension of other courses, including world history, cultures, and international studies.

The content of this series is based on the five fundamental themes of geography described in the *Guidelines for Geographic Education.* These themes are **location, place, relationships within places, movement,** and **regions.** The themes reflect the basic ideas and concepts used in global geography and will be familiar to teachers of geography at all levels. The series is also designed to develop and reinforce the geographic skills that are recommended by the *Guidelines* and being considered by the National Council for the Social Studies as part of its new social studies scope and sequence.

General Overview of Video Programs

The centerfold chart provides an outline of the programs included in this project. Each program focuses on a specific **region,** with the regions selected to represent every part of the world. This division of the world into regions is current practice in geography education and reflected in most geography textbooks and courses.

In each program a case study in a particular **setting** is used as the vehicle for examining an important **topic** typically presented in geography textbooks, such as land and water, trade, or food resources.

Each topic is considered in the form of an **issue,** such as dealing with natural hazards, building trade linkage, or adopting new ideas about food production. An issue was selected if it is important in a particular region and in other parts of the world and if it appeals to students in the target audience.

The particular geographic **theme** of each program helps students understand and analyze the issue

*These ideas are reflected in *Guidelines for Geographic Education* (Washington, D.C.: Association of American Geographers and National Council for Geographic Education, 1984).

considered. At the same time, students must use important geographic **skills** to ask and answer important questions about the issue. These skills include mapping, graphing, data handling, and critical thinking. Formal procedures for teaching these skills are presented in the teacher's guide.

The **story line** of each case study focuses on an individual or a family. This type of case study appeals to students in the target audience, and also emphasizes the human dimension of geography.

In each program **comparative examples** taken from countries in other world regions develop the issue further. Each program contains one or two examples from the United States or Canada and one that is similar to that in the case study. Other examples are more general, but also related to the case study.

Organization of Video Programs

This chart indicates the organization of the programs in this project.

Segment	Approximate Duration	Purpose
1. Introductory material	3 minutes	
Advance Organizer	30 seconds	Highlights program issue using excerpts from case study
Standard Opening	30 seconds	Continues to highlight issue using excerpts from comparative examples
Introduction to Issue	1 minute	• Introduces program issue • Establishes global context of issue • Develops organizing question for program
Overview of World Region	1 minute	Sets stage in particular region for case study
2. Case Study	7 minutes	Explores program issue using family as vehicle
3. Comparative Examples	4 minutes	• Provides further examples illustrating issue • Emphasizes global nature of issue
4. Ending	30 seconds	Asks students to consider impact of the issue on the people in the program

During the three minutes of introductory material, maps, charts, graphics, and preview pictures from the case study and comparative examples will present to viewers the region featured, the settings (particular countries) of the case study and the comparative examples, and an overview of the issue to be dramatized in the main segment. Much of this material, which appears quickly and briefly, is developed at length in the remaining parts of the program.

Use of this Guide

This guide is designed to help teachers use the video programs for their fullest possible instructional value. Each of the lessons in this guide is keyed to one of the *Global Geography* video programs. The lessons contain a summary of the conceptual and thematic foundations of the video program, a summary of what appears on the screen, a glossary of key terms, and suggestions for activities before and during the program to help students understand the issues that have been introduced. In addition, each lesson in this guide includes discussion questions for use after viewing and ideas for activities with local application, so teachers can help students understand how the fundamental themes of world geography have relevance in their own communities. At the end of the guide, teachers will find a section called "Further Resources," in which sources of supplementary readings and video materials are listed. There is also a reproducible handout—usually a map, table, or chart—to go with each lesson. Finally, a correlation matrix relates each *Global Geography* program to chapters in the geography textbooks most commonly used in middle and junior high schools.

Lesson Objectives

After the lesson on	Students will be able to
South Asia: Why Are Forests Disappearing?	
1. Program*	Identify factors that contribute to deforestation.
2. Program	Explain how human actions can dramatically alter the physical characteristics of places.
3. Program	Understand that places can be damaged, destroyed, or improved by human actions or natural processes.
4. Program/teacher	Make inferences from graphs.
5. Program	Describe how people's lives are affected by deforestation.
Southeast Asia: How Does Change Occur?	
1. Program	Describe the role played by change agents in the adoption of new ideas.
2. Program	Recognize the importance of the adoption of new ideas in the improvement of agricultural practices.
3. Program	Understand what characteristics a new idea must have if it is to be easily adopted by people.
4. Program/teacher	Obtain information from line graphs.
5. Program	Describe how people's lives are affected by the adoption of new ideas about food.
Japan: Why Does Trade Occur?	
1. Program	Describe the conditions encouraging the movement of resources and products between places.
2. Program	Understand that few places are self-sufficient and that, therefore, extensive human networks of transportation and communications link places together.
3. Program	Describe ways in which people move themselves, their products, and their ideas across the earth's surface.
4. Program/teacher	Obtain information from cartograms.
5. Program	Describe how people's lives are affected by imports and exports.
Soviet Union: Why Does Planning Occur?	
1. Program	Describe locations in terms of relationships with other locations.
2. Program	Understand that location is a significant aspect of every activity, event, person, place, and physical and cultural feature on earth.
3. Program	Realize that knowledge of locations and their characteristics is a key factor in understanding human interdependence.
4. Program/teacher	Ask geographical questions.
5. Program	Describe how people's lives are affected by planning.
East Asia: Why Do People Live Where They Do?	
1. Program	Give examples of factors that affect the distribution of human population in particular places.
2. Program	Know that places are distinct in terms of their physical and human characteristics.
3. Program/teacher	Use maps to ask questions about the distribution of population.
4. Program/teacher	Prepare and obtain information from area-value maps.
5. Program	Describe how people's lives are influenced by the locations in which they live.

*This column indicated whether each objective will be met primarily in the video program, the teacher's activities, or both.

After the lesson on	Students will be able to
Australia/New Zealand: Why Is the World Shrinking?	
1. Program	Describe how changes in transportation and communications systems influence the rate at which people, goods, and ideas move from place to place.
2. Program	Be aware that movements of people, goods, and ideas reflect global patterns of interaction among people in distant and nearby places.
3. Program	Understand that few places are self-sufficient and that, therefore, extensive human networks of transportation and communications link places together.
4. Program/teacher	Collect and assess information.
5. Program	Describe how the lives of people living in different places are affected by changes in transportation and communications linking these places.
North Africa/Southwest Asia: What Are the Consequences of Change?	
1. Program	Identify several ways in which people modify different physical environments.
2. Program	Describe how the human ability to modify physical environments has increased in scope and intensity through the use of technology.
3. Program	Give examples of how the significance and meaning of places change over time.
4. Program/teacher	Use map-reading skills.
5. Program	Describe how people's lives are affected by adopting new methods of doing things.
Africa—South of the Sahara: How Do People Use Their Environment?	
1. Program	Give examples of ways people view and use natural environments to extract needed resources, grow crops, and create settlements.
2. Program	Understand how different groups may view places differently.
3. Program	Understand that different groups see different possibilities and constraints in natural environments.
4. Program/teacher	Obtain information from maps.
5. Program	Describe how people's lives are affected by the way they use their environment.
Central and South America: Why Do People Move?	
1. Program	Identify the factors in particular examples of migration that lead people to move.
2. Program	Understand that migration involves a decision-making process in which potential migrants compare conditions where they are with conditions at potential destinations.
3. Program	Describe different types of migration that occur around the world (rural to urban, within cities, between countries, between continents).
4. Program/teacher	Obtain information from bar graphs.
5. Program	Describe how people's lives are affected by moving.
Europe: How Do People Deal with Natural Hazards?	
1. Program	Describe several ways in which people deal with natural hazards.
2. Program	Understand why humans attempt to control the effects of natural events such as floods, mudslides, and storms.
3. Program	Describe how the human ability to modify physical environments has increased through the use of technology.
4. Program/teacher	Make inferences from maps.
5. Program	Describe how people's lives are affected by natural hazards.

South Asia:
Why Are Forests Disappearing?

Place

Throughout history human beings have often dealt unwisely with the natural environment, but they have also been able to find ways to solve the problems that they create.

People can dramatically alter the physical characteristics of places. They can damage or destroy the land around them through their own actions or by unleashing natural forces. In many places in the world, for example, people cut down trees more quickly than they can be replaced. As a result, forest resources disappear, soils are exposed to erosion, and the region is subjected to flooding. But people can work to improve places. By finding substitutes for wood, and by encouraging natural and planned reforestation, for example, forests can be replenished.

Program Summary

The world's forests are disappearing, especially in Asia, Africa, and Central and South America. This program addresses the question "Why are forests disappearing?" It focuses on a case study in Nepal, a country in the region of South Asia.

In the introductory section, photos, maps, graphics, and charts provide a brief overview of the relationship between population growth and the use of forest resources in South Asia to set the stage for a consideration of how and why the forests are disappearing. People in this region depend on wood for a variety of purposes. The population of the region is growing so quickly that trees are being used up faster than they can be replaced.

The case study focuses on a family living in a rural part of Nepal. It makes five points.

1. In this area the forests are cut for firewood, for fodder, for industry, and to clear land for agriculture.
2. All of this cutting results in deforestation.
3. As a result, the father and son in the case study spend much of their time searching for firewood to gather.
4. Deforestation also results in extensive soil erosion and flooding in Nepal and adjacent countries.
5. Reforestation projects and programs to protect the forests have been initiated in an attempt to solve these problems.

The program also considers examples of situations in which people in Kenya, Brazil, West Germany, and Canada have both caused deforestation and initiated programs to solve the problem.

This program ends by asking students to consider how people's lives are affected by the disappearance of forests.

Glossary of Terms

acid rain—A rain (or snow) that can damage trees, lakes, and man-made objects. It occurs when the water vapor in the atmosphere combines with two chemicals, sulfur dioxide and nitrogen oxide, that

are produced when coal, natural gas, and oil (fossil fuels) are burned. This combination produces sulfuric and nitric acid, two harmful substances that fall to the ground with precipitation.

deforestation—The clearing or destruction of forests.

doubling time—The time required for a population to double in size if it continues to grow at its current rate.

erosion—The wearing away of the earth's surface by the action of water or wind.

fodder—Feed for livestock, often consisting of stalks and leaves from plants and trees.

nonrenewable resource—A natural resource that cannot be restored or replenished once it is used (e.g., coal, natural gas, petroleum).

renewable resource—A natural resource that can be restored or replenished after being used by humans (e.g., forests, soils, water).

terracing—The changing of a hillside or mountain slope into a steplike sequence of fields for agriculture.

Before the Program

Have students examine the circle graphs that appear on the handout for this lesson. Be sure that students understand what the "slices" on the graphs mean. Figures for 1984 are the most recent data available.

Have students describe what the circle graphs say. Ask students, "Are Nepal's forests increasing or decreasing in area?" *(They are decreasing in area. In 1964 forests covered one-third of Nepal's land area. In 1984 forests covered one-sixth.)*

Then have students make inferences about disappearing forests. Ask them, "Why do you think Nepal's forests are disappearing?" Encourage them to structure their guesses in the form that follows. Accept all hypotheses and record them for later use. *(Nepal's forests are disappearing because . . . their guess.)*

Tell students that the program asks the question, "Why are forests disappearing?" Ask them to watch for activities that damage and destroy forests and activities that improve forest resources. Mention that the program will let them know which of their hypotheses about disappearing forests are correct.

During the Program

At the end of the introductory material (approximately three minutes), you may wish to stop the tape and ask students to locate on a map the countries in which the case study and comparative examples are set. You may also ask them to identify and describe the issue to be considered in the program. Have them speculate about why the issue featured is a concern in the region highlighted in the program.

After the Program

A. Questions for Discussion

1. For what purposes do people in Nepal use forest resources? *(They use wood for fuel—to heat and cook—for fodder, and for industry; and they clear the land of trees for agriculture.)*
2. What role does population growth in Nepal play in the disappearance of forests there? *(In Nepal, people use wood for a variety of purposes. The population is growing so quickly that wood is being used faster than the supply can be replenished.)*
3. Review the hypotheses developed earlier by the students. Which ones are supported by the evidence presented in the program? *(It is important for students to realize that in Nepal rapid population growth underlies the disappearance of the forests. Because the population is growing, more and more wood is being cut for fuel, for fodder, for industry, and to clear land for agriculture. Because the population is growing so quickly, the wood is being used faster than the supply can be replenished.)*
4. Why did the father and son in the case study need to spend so much time gathering wood? *(The wood was far from their home and difficult to find because all the people in Nepal—those living both in the countryside and in the cities and towns—put pressure on forest resources and use those easy to reach quickly.)*
5. What were some of the other consequences of deforestation in Nepal? *(The loss of trees contributed to soil erosion and flooding in Nepal and surrounding countries. Cow dung can be a substitute for firewood, but then it is not available to fertilize the fields, which need all the nutrients they can get. Without such fertilizer, crop yields are much lower.)*
6. What are some of the ways in which people in Nepal are trying to improve the country's forest resources? *(They can rebuild their forests by reforestation programs, by using fast growing pine trees, and by finding substitutes for wood such as cow dung and kerosene.)*
7. In what ways is the situation of Kenya's forests similar to that of Nepal's? *(In both cases people use wood for a variety of purposes.*

Both countries have rapidly growing populations. The wood supply in each country is used faster than it can be replenished. Efforts are being made in both Kenya and Nepal to maintain and/or restore forest resources.)

8. What is the wood cut in Brazil and Canada used for? How are people in both countries restoring the wood supply? *(In Brazil wood is used to make paper, and forests are cleared for agriculture, especially raising cattle, and for roads. In Canada wood is used for industrial purposes—to make shingles and supports for buildings. In both cases, cut trees are replaced with seedlings to assure a continuing supply of wood.)*
9. Acid rain contributes to the destruction of forests in West Germany. Do you think that acid rain contributes much to the destruction of trees in Nepal and Kenya? Why or why not? *(Acid rain is probably not a factor in the destruction of trees in Nepal and Kenya because neither nation has the industries that produce the concentration of pollutants that combine with water moisture to form acid rain.)*
10. How are people's lives affected by deforestation? *(Accept all reasonable responses.)*

B. Local Community Application

1. Summarize what has been considered so far in this lesson. *(Forests are disappearing in some parts of the world because the rapidly growing population is using forest resources faster than they can be replenished; in other parts of the world acid rain is killing trees; efforts are being made everywhere to restore forest resources.)*
2. Use the following steps to introduce the local community application activity.
   - Have students determine where the forests are located in your area. You may decide to focus on forests in your city, county, or somewhere in your state or province.
   - Identify the governmental agency (or company) responsible for those forests and invite a representative of that agency or company to come to your class.
   - Have students prepare questions before the representative comes to class. *(They might ask, "How are these forests used? What has been the impact of acid rain in this area? What efforts are being made to maintain the forest resources in this area? What can individuals do to help preserve our local forest resources?")*
3. Have students prepare a display about the status of forests in your area, based on information obtained from the forestry representative and other sources.
4. Rephrase and pose a question such as that appearing at the end of the program, for instance, "How have disappearing forests affected the lives of people living in our area?" *(Accept all reasonable responses.)*

C. Other Follow-up Activities

1. Rapid population growth is one reason for the disappearance of forests. One way to compare population growth rates among countries or regions is to consider "doubling-times." *(The glossary defines "doubling time" as the number of years it would take for a place to double its population if it continues to grow at its current rate.)* The program indicated that South Asia has a doubling time of about 30 years.

   Shown below are the doubling times for countries highlighted in the program. Have students examine these doubling times and then speculate about the impact that these doubling times would have on the use of natural resources (wood, food, water, minerals) in each country.

	1987 Population	Doubling Time
Nepal	17.8 million	28 years
Kenya	22.4 million	18 years
Brazil	141.5 million	33 years
West Germany	61.0 million	Never*
Canada**	29.9 million	91 years

*West Germany's population is declining, not growing. Unless this trend reverses, it is unlikely that the population will ever double.

**Doubling time for the U.S. is 102 years; for the world it is 40 years.

   An excellent, inexpensive source of comparative demographic, social, and economic data for countries and world regions is the *World Population Data Sheet*, available from:

   Population Reference Bureau, Inc.
   2213 M St. NW
   Washington, DC, 20037
   Phone: (202) 785-4664.

2. Assign students written reports, based on articles from news magazines, on the impact of acid rain. Their research should show how acid rain has a significant effect on the health of forests in Canada and the United States and affects relations between the two countries. Have them use the *Readers' Guide to Periodi-*

cal Literature, available in most libraries, as a source of articles.

Stock footage for "South Asia: Why Are Forests Disappearing?" was obtained from the following sources.

Council of Forest Industries of British Columbia

Shell International Petroleum Co., Ltd.

Visnews Limited

Southeast Asia: How Does Change Occur?

Movement of Ideas

Change is occurring all the time. Discoveries are made every day in the areas of science and medicine. New inventions and products are constantly being introduced. These new machines, procedures, information, and ideas often result in changes in the way we live.

Change always begins with the introduction of something new. This innovation can be a new machine, a new technique, or new idea. Sometimes change occurs when members of a group develop and adopt an innovation themselves. Often, however, change begins when an innovation is borrowed by one group from another.

The feelings of group members about the innovation often determine whether or not it will be adopted. Specifically, an innovation is likely to be adopted if potential users feel that it is consistent with their cultural values, if it is easy to understand and use, and if an immediate advantage to using the innovation can be seen.

Program Summary

New ideas about improving food production are being developed every day. To have an impact on world agriculture, these new ideas must be tested and used by farmers. This program examines how new ideas are adopted by asking the question, "How does change occur?" It focuses on a case study in the Philippines, a country in the region of Southeast Asia.

The introductory material contains a brief overview of the relationship between the production of rice (the staple food) and population growth in Southeast Asia, and sets the stage for considering how change occurs. Traditionally a balance existed between food production and population. Then the population began to grow faster than food production. Now, however, the balance between food and people is being restored because farmers are using new, innovative techniques to produce much more rice.

The case study in this program focuses on a change agent, a village headman, and farmers living in a village north of Manila. It makes five important points.

1. The same rice production techniques have been used for centuries.
2. Because the population of the Philippines is growing so quickly, new farming techniques must be adopted to increase food production.
3. It is the job of the change agent, working through the village headman, to convince local farmers to adopt new ideas about rice production.
4. To be adopted, the new idea must be consistent with the culture of the people who will adopt it, easy to understand and use, and an improvement over the idea presently in use.
5. There are consequences when a new idea is adopted.

The program also considers examples of situations in which change agents in India, Guatemala, and the United States work with farmers to encourage them to adopt new ideas.

The program ends by asking students to consider how people's lives are affected by the adoption of new ideas.

Glossary of Terms

change agent—An individual, such as an agricultural extension agent, a Peace Corps volunteer, or salesperson, who works to introduce new ideas into a group and assure their adoption.

green revolution—Term for modern agricultural advances, including new high yield varieties of seed, fertilization, and cultivation techniques. These have increased production, especially in Asia, and have narrowed the gap between population growth and food needs.

innovation—A new idea, technique, or piece of information.

irrigation—The artificial distribution of water by the construction of channels from the water source or storage place to the farm fields where water is needed.

paddy—Flooded fields in which rice is grown.

no-till planting—A single-pass planting technique that involves opening a slot in the soil into which seeds are dropped and covered, while leaving most or all of the previous crop's residue on the soil surface. Its purpose is to avoid soil erosion.

Before the Program

Ask students to examine the line graph that appears on the handout for this lesson. Have them use the following procedure to obtain information from the line graph.

1. Inspect the title to determine the subject of the graph. *(The graph is about rice production per person in the Philippines.)*
2. Examine the labels on the X and Y axes to determine what information is displayed in the graph and how it is organized. *(The labels on the X axis indicate that information is shown for every five years from 1950 to 1985. The Y axis label indicates*

that rice production per person is shown in kilograms.)

3. Follow the path taken by the line joining the plotted points and describe the changes that have taken place. *(The amount of rice produced per person began to decline around 1955. After 1965, however, the situation began to gradually improve, as more and more rice was produced per person.)*

Tell students that the program asks the question, "How does change occur?" It is about changes that are taking place in agriculture in the Philippines. The changes explain why the food production situation described in the line graph began to improve after 1965.

During the Program

At the end of the introductory material (approximately three minutes), you may wish to stop the tape and ask students to locate on a map the countries in which the case study and comparative examples are set. You may also ask them to identify and describe the issue to be considered in the program. Have them speculate about why the issue featured is a concern in the region highlighted in the program.

After the Program

A. Questions for Discussion

1. Why do you think it is necessary for farmers in the Philippines to adopt new farming practices? *(Because their old farming practices are not producing enough rice to meet the needs of the rapidly growing population.)*
2. What role does Ibasan, the change agent, play in the adoption of new ideas in San Bartolome? *(His role is to take new ideas that were developed and tested elsewhere—at the International Rice Research Institute, for example—introduce them to the local farmers, and encourage these farmers to use the new ideas.*
3. Why do you think Ibasan goes to see the village headman before he visits the farmers in their fields? *(Because he needs the headman's support for his ideas. Without the headman's support, other villagers are unlikely to listen to him.)*
4. People are more likely to adopt new ideas if they can see some advantage to using them. Ibasan recommended that the farmer plant his rice in straight rows rather than in a random pattern. From the farmer's point of view, what were the advantages and disadvantages of using this new way of planting rice? *(Advantages: More rice can be produced, resulting in more income, making it possible to replace his carabao (water buffalo) with a motorized plow, so that his sons will have more spare time and can go to school. Disadvantages: He will need to hire people from the village to help him plant the rice in straight rows, and their wages will cost money.)*
5. In what ways was the situation in India, shown in the program, similar to that of the Philippines? *(In both places, the same farming practices had been used for hundreds of years. In both places, the population was growing rapidly so that traditional farming techniques could not produce enough food to meet people's needs. In both cases, change agents introduced new ideas and techniques. In both cases, the situation improved.)*
6. Why did the government of Guatemala use the radio to spread new ideas? *(Because the areas into which the new ideas were to be spread were extremely difficult to reach.)*
7. How are new ideas introduced to farmers in the United States? *(By using change agents, such as experts from state agricultural colleges and county extension agents, just as in other parts of the world.)*
8. How are people's lives affected by the adoption of new ideas? *(Accept all reasonable responses.)*

B. Local Community Application

1. Summarize what has been considered so far in this lesson. *(Change is occurring all the time. Often change begins when an innovation is borrowed by one group from another. Change agents work to introduce new ideas into a group and assure their adoption.)*
2. Use the following steps to conduct the local community application activity.
   - Identify the governmental agency that houses the agricultural extension agent in your area. (Even large cities have agricultural extension agents.) Invite the agent to your class.
   - Have students prepare questions before the extension agent comes to class. *(They might ask, "What types of innovation do you try to get adopted? Where did you learn about them? Who are the people that you try to convince? What methods do you use to introduce people to new ideas? What characteristics does a new idea need to have if it is to be adopted by people in this area?")*

- Have students prepare diagrams for display that use the information gathered from the agricultural extension agent to answer the question, "How does change occur?"

3. Rephrase and pose the question that appeared at the end of the program, "How does the adoption of new ideas affect the lives of people in our community?"

C. Other Follow-up Activities

1. The case study in this program is a specific illustration of a complex phenomenon known as the *green revolution.* (See the glossary for a definition.) While the green revolution is generally viewed positively, critics have identified many problems associated with it. Have students collect information about the green revolution from newspapers and news magazines using the *Readers' Guide to Periodical Literature* as a source of articles. Ask students to use the article to generate lists of "good news" and "bad news" associated with the green revolution.

2. Junior high and middle school students are often "geographic illiterates." They don't have any place-name knowledge. Teachers argue that it is difficult to teach about Southeast Asia, for example, when students don't know which countries are in the region or where they are located. These teachers are correct.

   To help students become familiar with the countries of this region and their locations you might try the following activity: (You will need to distribute blank outline maps of the region, and you will also need data for the region's countries, such as that which appears in the *World Population Data Sheet.*)

   Ask students a series of questions about the region's countries that can be answered by examining the data sheet. Then have them plot their answers on the map, using an atlas as a guide. You might ask

   - Which three countries in the region contain the most people?
   - Which three countries have the lowest rate of natural increase?
   - Which five countries in the region are the poorest, as measured by low per-capita Gross National Product (GNP)?
   - Which countries have the highest percentage of their population living in cities?
   - Which countries in the region have doubling times of less than 30 years?

World Population Data Sheet is available from:

Population Reference Bureau, Inc.
2213 M Street, NW,
Washington, DC 20037.
Phone: (202) 785-4664.

Stock footage for "Southeast Asia: How Does Change Occur?" was obtained from the following sources.

Asian Films

Agency for International Development and Academy for Educational Development

International Rice Research Institute—IRRI

Purdue University Department of Agronomy

United Nations Centre for Human Settlements

Japan: Why Does Trade Occur?

Movement

Human beings occupy places unevenly across the face of the earth. Some live on farms or in the country; others live in towns, villages, or cities. Yet these people interact with each other. They travel from one place to another, they communicate with each other, or they rely upon products and resources that come from beyond their immediate environment.

The transportation and communications lines that link every part of the world are the most visible evidence of global interdependence and the interaction of places. These links demonstrate that most people interact with other places almost every day of their lives. This interaction may involve nothing more than a person in Manitoba eating apples from British Columbia, shipped to Winnipeg by rail or truck. On a larger scale, international trade demonstrates that no country is completely self-sufficient.

Program Summary

People everywhere use resources and products of various sorts to meet their needs. Sometimes people must obtain the things they need from other parts of the world. This program examines how people obtain the resources and products they need from other parts of the world. It asks, "Why does trade occur?" by focusing on a case study in Japan.

The introductory material contains a brief overview of Japan's import needs to set the stage for considering why trade occurs. Maps demonstrate that Japan uses much more energy than it produces. So Japan must import much of its energy from other parts of the world.

The case study in this program focuses on families living in an urban, industrialized area in Japan. It makes three important points.

1. Japan imports natural resources and products for industry and for daily life.
2. Japan uses natural resources obtained from abroad to manufacture a wide variety of goods.
3. These manufactured goods are sold within Japan, but they also are exported around the world to pay for more natural resources and products.

The program also considers examples of trade occurring in West Germany and Kenya. In addition, it shows business people in the United States learning the customs and traditions of their customers. In all comparative examples, trade occurs because no country is completely self-sufficient.

The program ends by asking students to consider how people's lives are affected by imports and exports.

Glossary of Terms

cartogram—A type of map on which the sizes of places (e.g., nations, regions) are based on some quantity other than area.

energy use—The consumption of energy resources such as coal, petroleum, natural gas, water power, nuclear power, geothermal energy, and wood to run cars, heat buildings, generate electricity, and run factories.

energy production—The production of energy resources such as coal, petroleum, natural gas, water power, nuclear power, geothermal energy, and wood.

exports—Goods and services that are sold to foreign people, businesses, or governments.

imports—Goods and services that are brought into one nation from other nations.

natural resource—An element of the natural environment that is viewed as useful to a group's survival.

Before the Program

Have students examine Map 1 that appears on the handout for this lesson. Tell them that this map has been divided in regions and that the map shows the shapes and sizes of the regions quite accurately.

Next, have them look at Map 2, which is about energy consumption. Ask them to compare Japan on the two maps. Ask them to report on the shape and size of the two Japans. *(The shapes are the same, but the size of Japan on Map 2 is much bigger.)*

Tell students that Map 2 is a cartogram. On cartograms, the size that regions are drawn is important. On Map 2, the size of a region tells how much energy per person is consumed or used in that region compared to other regions. The regions that consume more energy per person are drawn bigger than the regions that consume less energy per person. The rule of cartograms is

Bigger Means More, Smaller Means Less

Have students compare Southwest Asia and Japan on Map 2. Ask, "Which region is bigger? What does that mean on a cartogram?" *(Japan is drawn bigger. This means that it uses more energy per person than Southwest Asia does.)*

Have students inspect Map 3. Point out that it is a cartogram showing energy production per person.

Ask them to remember the rule of cartograms as they compare Southwest Asia and Japan. *(Southwest Asia is drawn larger, so it must produce more energy than Japan.)*

Finally, have students compare Japan on Maps 2 and 3. Ask them, "Does Japan produce more energy than it uses?" Remind students to use the rule of cartograms to answer this question. *(No, the cartogram of energy use shows Japan much larger, indicating that Japan uses much more energy than it produces.)*

Tell students that since Japan uses more energy than it produces, it must import much of the energy that it needs from other parts of the world. What is true of energy resources is also true of other things. The Japanese must import many of the resources and products that they need.

Tell students that this program asks the question, "Why does trade occur?" They will learn how the Japanese obtain the resources and products that they need from other parts of the world.

During the Program

At the end of the introductory material (approximately three minutes), you may wish to stop the tape and ask students to locate on a map the countries in which the case study and comparative examples are set. You may also ask them to identify and describe the issue to be considered in the program. Have them speculate about why the issue featured is a concern in the region highlighted in the program.

After the Program

A. Questions for Discussion

1. This program asks the question, "Why does trade occur?" How would you answer this question now that you have seen the program? *(The people of Japan must import certain products and resources to meet their needs, but they must pay for these imports. To do this, they make products, most of which are exported to other countries. People in these countries, in turn, pay companies in Japan for these products.)*
2. What evidence did you see in this program to suggest that the Japanese are not self-sufficient in terms of the products and resources they use to meet their needs? *(The Japanese must import energy resources, foods—such as bananas, butter, wheat, and salmon—coal and iron ore, aluminum, plastics, and machines to help meet their needs.)*
3. What are some of the products that Japan exports to other countries? *(Cars and cameras.)*
4. Are the West Germans self-sufficient in terms of the products and resources they use to meet their needs? *(No, they must import products and resources. In order to pay for them, they manufacture products like Airbuses for sale to other countries.)*
5. What products does Kenya export to pay for the things like automobiles, clothing, and magazines that it imports? *(Kenya mainly exports agricultural products, such as pineapples.)*
6. Why were the American business people shown in the program learning Japanese customs and traditions? *(Because the United States, like other countries, is dependent on imports. To pay for them, the United States must export products as well. To be successful exporters and business people must be sensitive to the customs and traditions of their customers.)*
7. How are people's lives affected by imports and exports? *(Accept all reasonable responses.)*

B. Local Community Application

1. Summarize what has been considered so far in this lesson. *(People interact with each other. They rely on products and resources that come from beyond their immediate environment.)*
2. Use the following steps to conduct the local community application activity.
   - Have students generate a list of products and resources that are "imported" into your community from other places. This task can be accomplished by having them do a survey of items in their own homes or in local stores and other businesses. Have students take note of the origin of each item identified. You can choose to focus only on items from other countries, but you might also include items from other states or provinces in your list of imports.
   - Have students generate a list of products and resources that are "exported" from your community to other places. Students might survey local large and small companies to

determine what is shipped out. The local Chamber of Commerce can help in this task. Have students take note of the destination of each item identified. You can choose to focus only on items that are sent to other countries but might also include items sent to other states or provinces on your list of exports.

- Once all the evidence is collected, you might have students write an essay describing your community's linkages to other parts of the world. Ask students also to address the following question in their essays, "How do imports and exports affect the lives of people living in our community?"

C. Other Follow-up Activities

1. A great deal of attention has been given in recent years to the "Pacific Rim"—the rim-shaped arc of countries that begins with Australia and New Zealand and extends north through Southeast Asia and into China, Japan, and Korea, catching the Soviet Union on its Pacific Coast. The rim then extends south along the west coasts of North, Central, and South America. Attitudes towards the Pacific Rim are very mixed in Canada and the United States today. On the one hand, we are geographically and economically a part of the rim and benefit from the stronger economic ties that reach across the Pacific. On the other hand, the countries of the Asian portion of the rim are perceived as a growing threat to jobs in our countries.

   Have students find newspaper and magazine articles dealing with the Pacific Rim. Have them consider such questions as, "How has trade among Pacific Rim countries increased in recent years?" "How have politicians in Canada and the United States responded to the increase in exports from Asian countries to our countries?" "Which countries in Asia are posing a threat to Japan as the dominant country in the Asian portion of the Pacific Rim?" Have students use the *Readers' Guide to Periodical Literature*, available in most libraries, as a source of articles.

2. Ask students to write up a case study describing a global connection. Have them begin by thinking about people who have connections or relationships with people in another country. On their list, they may include some of the following people.

   Tourists
   Salespeople
   Spies
   Refugees
   Sports players
   Missionaries
   Fashion designers
   Smugglers

   Then ask them to look in magazines and newspapers for background information. What they are looking for is an example of some connection between individuals, companies, or governments—a connection that reaches from one country to another or from one part of the world to another.

   Once they have an example of global connection and have gathered some background information, they are ready to develop their case studies. Ask students to answer three questions in their case studies.

   - What countries or regions are involved?
   - What individual or groups of people are involved, and what are they doing that makes a global connection?
   - What are the consequences of the connection?

Stock footage for "Japan: Why Does Trade Occur?" has been obtained from the following sources.

ATV—The Atlantic Television System, Halifax, Nova Scotia

Council of Forest Industries of British Columbia

International Air Transport Association

Norman Miller, African/Caribbean Institute

Mitsui OSK Line

Tele Japan USA

United Nations Centre for Human Settlements

Visnews Limited

Soviet Union: Why Does Planning Occur?

Location

Resources are unevenly distributed over the face of the Earth. Coal and timber, for example, are resources necessary for the operation of modern industries. Yet many developed nations do not have major coal and timber reserves. Others, such as the Soviet Union, have coal and timber, but not where they are needed by industry. These nations must make arrangements that guarantee a continuing flow of resources from where they are found to where they are needed. Knowledge of locations and their characteristics is a key aspect of understanding interdependence at local, regional, national, and global scales.

Program Summary

People use resources to meet their needs. Countries often develop plans or strategies to determine where their resources are located and how they will be used. This program addresses the question, "Why does planning occur?" It focuses on case studies in the Soviet Union.

The introductory material contains a brief overview of the distribution of natural resources in the Soviet Union to set the stage for considering why planning occurs. The Soviet Union is a vast area containing many resources . The major untapped deposits are located, however, in the eastern part of the region, but they are needed in the West. Government planners decide how, when and where to exploit these resources and how to get them from where they are found in the East to where they are needed in the West.

The case study in this program focuses on two families living in eastern Siberia. One lives in Ust-Ilimsk where the mother is a planner for the local timber plant. The other family lives in Nerungry where the father operates a coal shovel at the world's largest open pit coal mine. The case study makes five important points.

1. The Soviet Union is divided into planning regions. Government planners decide what each planning region will contribute to the others.
2. Planners in each planning region decide how much timber and coal they will need. Planners in Ust-Ilimsk and Nerungry must make sure that demands are met and that resources reach their destinations.
3. Ust-Ilimsk and Nerungry were built by the government to house workers involved in exploiting timber (in Ust-Ilimsk) and coal (in Nerungry).
4. Both cities ship resources to the western part of the Soviet Union by train, especially by the recently completed Biakal-Amur Mainline (BAM) Railway.
5. Nerungry exports coal to Japan on the Trans-Siberian Railway and ships.

The program also considers examples of situations in which planning occurs in the Netherlands, Japan, and the United States.

The program ends by asking students to consider how people's lives are affected by planning.

Glossary of Terms

exploit (resources)—To use

export—Goods and services that are sold to foreign people, businesses or governments.

fish farming—The use of a body of water for the raising and harvesting of fish. Japan is among the world's leaders in fish farming.

natural resource—An element of the natural environment that is valued as useful to a group's survival.

nonrenewable resource—A natural resource that cannot be restored or replenished once it is used (coal, natural gas, iron ore, and petroleum are examples.)

Before the Program

Point out to students that "where?" is the question that defines geography. Asking and answering "where" questions can help us understand a number of problems faced by people.

Have students examine the table that appears in the handout for this lesson. Mention that the Soviet Union extends into two continents—Europe and Asia. The table distinguishes between the European and Asian parts of the region. Make sure students carefully consider the table's footnote. It will help

them understand the table itself, and it will prepare them for the map of Soviet economic activities and the statements made about it during the animated portion of the program.

Ask students some geographic questions based on the table. Ask them, "Where do more people live—in the European (western) or Asian (eastern) part of the Soviet Union?" *(More people—74 percent—live in the West, but only 26 percent live in the East.)* "Where is more timber found, in the East or the West?" *(The East has 77 percent , the West only 23 percent.)*

Ask students to develop some geographic questions of their own, based on the table. *(They might ask, "Where does more industry exist—in the East or West?" "Where are more fuel and energy resources found—in the East or the West?")*

Have students find answers to the questions they have developed. *(Industry is mainly in the West. Fuel and energy resources are found in the East.)*

Then point out that these geographic conditions create a major problem for the Soviets. People and industry are mostly located in the West, but resources are mainly in the East.

Tell students that this program asks the question, "Why Does Planning Occur?" It is about how the Soviets deal with this problem of location—this question of "Where?"

During the Program

At the end of the introductory material (approximately three minutes), you may wish to stop the tape and ask students to locate on a map the countries in which the case study and comparative examples are set. You may also ask them to identify and describe the issue to be considered in the program. Have them speculate about why the issue featured is a concern in the region highlighted in the program.

After the Program

A. Questions for Discussion

1. What problem does the location of people and resources cause for the Soviets? *(Most of the resources needed today are in the East, but the population using them is in the West.)* You might tell students that the European part of the Soviet Union was once rich in coal, iron ore, aluminum, and other raw materials. These nonrenewable resources, however, have been depleted over the years in the West. Deposits in the East, on the other hand, are only recently beginning to be exploited.
2. Why are the cities of Ust-Ilimsk and Nerungry located where they are? *(Both are located close to major natural resource sites. Ust-Ilimsk is near forests, Nerungry near a major coal deposit. They were built there to house*

workers involved in exploiting these resources.)

3. How are the resources found in Ust-Ilimsk and Nerungry transported to where they are needed? *(Mainly by rail and to Japan by train and ship.)* You could explain that both cities ship resources to the western part of the Soviet Union mainly by the Biakal-Amuk Mainline (BAM) Railway. Nerungry exports coal to Japan via the Trans-Siberian Railway to Vladivostok and then by ship.
4. According to the program, what is the task of planners in the Soviet Union? *(To decide how, when, and where to exploit resources and how to get them from where they are found to where they are needed.)*
5. Why are people in the Netherlands concerned about decisions made about how land is used? *(Because land is scarce.)*
6. Why are the Japanese concerned about assuring a continued supply of fish? What is one of the ways in which planners have tried to solve this problem? *(The Japanese depend on fish to supply about 50 percent of their protein needs. Fish farming is one way they have tried to assure a continued supply of fish.)*
7. How have planners in the United States solved the problem of getting oil from where it is found in Alaska to where it is needed? *(They decided to build an 800-mile pipeline from the source of oil to Valdez, Alaska. From there, the oil is sent by ship to the state of Washington.)*
8. How are people's lives affected by planning? *(Accept all reasonable answers.)*

B. Local Community Application

1. Summarize what has been considered so far in this lesson. *(People use resources to meet their needs. In many situations, planners decide how, when, and where to exploit these resources and how to get them from where they are found to where they are needed.)*
2. Use the following steps to conduct the local community application activity.
   - Identify a governmental agency that does planning in your area. Although neither Canada nor the United States does planning on the scale of the Soviet Union, planning does occur at the local, county, state, or provincial and sometimes regional level in both countries. Try to find an agency that is involved in planning for the locations of such developments as a new school, a new highway, or new industries. Invite a planner from this agency to your class.
   - Have students prepare questions before the planner comes to class. *(They might ask, "What sorts of planning do you do? Why is planning of this sort necessary? What do you consider when you decide on a location for something?")*
   - Have students prepare displays that use the information gathered from the planner to answer the question, "Why does planning occur?"
3. Rephrase and pose the question that appeared at the end of the program, "How does planning affect the lives of people in our area?"

C. Other Follow-up Activities

1. The recently completed Baikal-Amuk Mainline (BAM) Railway runs from Ust-Kut, near Lake Baikal, to the city of Komosolsk, on the Amur River near the Pacific Coast. It runs parallel to the Trans-Siberian Railroad and between 100 to 500 miles (160 to 800 kilometers) to the north. It is the railroad that connects the two case study cities to the outside world. It is called the "road of resources" by the Soviets.

   Have your students do research on BAM, focusing on the problems associated with its construction (building on permafrost, cold weather), the impact that it has on the Soviet economy (making it possible to move resources to where they are needed), and the influence of the railway on settlement patterns in eastern Siberia (settlement concentrates along the length of the railway). Have them use the *Readers' Guide to Periodical Literature*, available in most libraries, as a source of articles.
2. Two magazines published in the Soviet Union, *Soviet Union* and *Soviet Life*, are available in major libraries and on newsstands in this country. They are in English.

   Have students examine back issues of these magazines to find articles dealing with life in the eastern portion of the Soviet Union.

   Have them use this information to create displays focusing on life in Siberia.

Stock footage for "Soviet Union: Why Does Planning Occur?" has been obtained from the following sources.

Alyeska

Pendleton Productions, Inc.

East Asia:
Why Do People Live Where They Do?

Location

The world can be divided into areas inhabited by large numbers of people and regions that are almost uninhabited. More than two thirds of the world's population lives on just seven percent of the earth's land surface. Places with large population concentrations—such as Eastern North America, Western Europe, South Asia, Japan and other parts of Eastern Asia—have certain characteristics in common. They are generally low-lying, with fertile soils and temperate climate.

People tend to avoid certain types of environment. In general, they prefer not to live in regions that are too dry, too wet, too cold, or too mountainous for such activities as agriculture.

Program Summary

The world's population is unevenly distributed over the face of the earth. In some parts of the world there are almost no people, but in other parts of the world, there are major concentrations of people. This program considers the reasons for the way the population is distributed by addressing the question, "Why do people live where they do?" It focuses on a case study in China, a country in the region of East Asia.

The introductory material contains a brief overview of population distribution in East Asia and China. It sets the stage for a considing why people live where they do. A map shows that in China population is concentrated in the eastern part of the country. The case study in this program focuses on a family living on a cooperative farm near the capital city of Beijing. It makes three important points.

1. In the eastern half of China (Agricultural China), the soils are fertile, there is plenty of water, and the growing season is adequate.
2. Therefore, plenty of food can be grown and large numbers of people can be supported.
3. In the western half of China (Outer China), the soil is poor, water is scarce, and the growing season is short. As a result, less food can be grown there, and fewer people can be supported.

The program also considers population distribution in Egypt, Japan, and Canada. The factors affecting population distribution are highlighted in each case.

The program ends by asking students to consider how people's lives are affected by where they live.

Glossary of Terms

area-value map—A map on which information is plotted by the area units (e.g., counties, provinces, states) used for collecting the information.

cooperative—A large farm unit, owned by the government, which is farmed and administered collectively by those who live there.

growing season—The number of days between the last frost of spring and the first frost of fall.

map legend—An explanation of what the symbols on a map represent.

plateau—An extensive level stretch of land raised above the surrounding landscape.

population density—The number of people per square mile or kilometer.

population distribution—Where people are located on the surface of the earth.

Before the Lesson

Tell students that this lesson is about population distribution—where people are located on the surface of the earth. Indicate that an area-value map is a good way to portray population distribution.

Ask students to use the information and the blank map that appears on the handout for this lesson to construct an area value map of China. Have them use the following procedure to construct this map. *(The term* population density *is explained in the Glossary.)*

1. **Plot the information.** Transfer the information from the table to each province and other area on the map. Copy the population densities onto the map lightly in pencil.
2. **Group the information.** The information plotted in the first step must be simplified. This is done by grouping the information into categories. On this map, population densities are grouped into "high," "medium," and "low" categories. The categories are always listed in the legend. Select a color or pattern to represent each category. Then fill in the boxes in the legend with the colors or patterns that you selected.
3. **Complete the map.** Color or shade in each province according to the category to which it belongs. For example, a province with a population of 400 people per square kilometer should be shaded or colored to show that it is in the high category.
4. **Give the map a title.** The title of the table used to construct the map will help in this task.
5. **Add a footnote to the map.** Indicate the source of the information used and any definitions that will be helpful to the map user.

When students have completed their maps have them discover what the map says about population distribution in China. Ask them to answer the following questions:

1. In what part of China is population density highest? *(In the east central part of the country.)*
2. Where is population density lowest? *(In the North and West.)*

Tell students that the program asks the question, "Why do people live where they do?" It will explore the factors that help explain the distribution of population in China that they just plotted.

During the Program

At the end of the introductory material (approximately three minutes), you may wish to stop the tape and ask students to locate on a map the countries in which the case study and comparative examples are set. You may also ask them to identify and describe the issue to be considered in the program. Have them speculate about why the issue featured is a concern in the region highlighted in the program.

After the Program

A. Questions for Discussion

1. Why do you think the world's population is unevenly distributed over the face of the earth? *(Because there are certain places where people prefer not to live, especially regions that are too dry or too wet or too cold. People generally prefer not to live in areas that are too mountainous either, but there are significant exceptions in Central and South America and in Africa. On the other hand, there are places, generally low-lying, with good soils and climate, where people cluster: Japan, East Asia, South Asia, Europe, and parts of the United States and Canada are examples. There is also a major population concentration in Southeast Asia.)*
2. In this program, the girl asks her father why most of the people live in the eastern part of China, in Agricultural China, while few live in the West, in Outer China. How would you answer her question? *(In Agricultural China, the soil is good, there is plenty of water, and crops can be grown all year round. As a result, plenty of food can be grown there and the region can support a large population. In Outer China, the soil is poor, water is scarce, and the growing season is short. As a result, less food can be grown there and fewer people can be supported.)*
3. The program mentions that in the area of the Evergreen Cooperative there are four distinct seasons. It also mentions that it is situated in a part of the country in which crops can grow all year around. How is it possible to grow crops year around when there are four distinct seasons? *(The people on the Evergreen Cooperative make extensive use of greenhouses. Because they grow food all year round, they have named it the "Evergreen Cooperative.")*
4. Why do almost all of the people in Egypt live quite close to the Nile River? *(Egypt is a dry country, so the location of water is important. Since most Egyptians are farmers, they must locate close to water—that means close to the Nile.)*
5. What two elements of the natural environment most affect population distribution in Japan? *(a.* The mountains: *Few people live in the cen-*

tral parts of the islands of Japan where it is mountainous. b. The lowlands: *Most people live in the lowlands where agriculture takes place and where it is easier to build cities.)*

6. Why is the population of Canada concentrated near the border with the United States? *(The distribution is affected by the location of harbors and major rivers and waterways which attract urban activities. The distribution is also influenced by climate. People prefer not to live where it is as cold as northern Canada.)*
7. How are people's lives affected by where they live? *(Accept all reasonable responses.)*

B. Local Community Application

1. Summarize what has been considered so far in this lesson. *(The human population is concentrated in certain places. There are other places that people tend to avoid. It is possible to identify reasons for both population concentrations and voids).*
2. Use the following steps to conduct the local community applications activity.
   - Indicate to students that some interesting changes have occurred in the distribution of population in each state or province since 1970. Many areas outside metropolitan areas are growing, while some metropolitan areas are shrinking.
   - Have students follow the procedure outlined in the "Before the Lesson" activity in this lesson to create an area-value map of your state or province showing population change. Use the county as the unit area. Have students plot data on population change in each county since 1970. Have them group the population change figures into "high," "medium" and "low" categories. (These data are available for states or provinces through the government census bureau. Publications concerning your state or province can be found in your local library.)
   - Have students examine the finished maps. Ask them to identify areas of growth and decline in your state or province. Ask them to speculate about why these areas grew or declined in population between 1970 and the present.
3. Pose this question, "How are people's lives in our state or province affected by where they live?"

C. Other Follow-up Activities

1. The *World Population Data Sheet* contains a wide variety of social, demographic, and economic information for more than one hundred countries. Have students use a column of information from this source (life expectancy, for instance) to construct an area-value map. They should follow the procedure introduced in the "Before the Program" activity for this lesson. Students will need to choose an appropriate outline map for this activity. Students may also need atlases to help them locate countries on the outline map. Note that students will need to group the information used to construct their maps into categories in order to create a useful map. Have them identify high, medium, and low categories. Suggest that students create categories that have about the same number of countries in them.
2. As China has improved its relations with Canada and the United States, more and more articles have appeared in news magazines about China. Have students do reports on the changing relations between the United States or Canada and China, based on articles in these magazines. Have them use the *Readers' Guide to Periodical Literature* as a source of articles.

Stock footage for "East Asia: Why Do People Live Where They Do?" has been obtained from the following sources.

ACCESS NETWORK

Japan Information Service,
Consulate General of Japan

Visnews Limited

Australia/New Zealand: Why Is the World Shrinking?

Movement

The earth's surface can be thought of as a sheet of malleable material. Changes in transportation and communications systems can make it shrink or stretch.

The need to move goods, people, and ideas from place to place as rapidly as possible has resulted in major changes in transportation and communications systems. If distance is measured in time, rather than in miles or kilometers, these changes have been "shrinking" the world we live in.

The amount of time-shrinkage is not the same everywhere in the world. In fact, a place that is not "plugged into" the existing transportation or communications system may find that its "time-distance" to other places is not shrinking at all. It may actually be getting more isolated from other places in terms of the time it takes to reach them.

Program Summary

Extensive networks of transportation and communication link people together. The desire to move goods, people, and ideas from place to place as rapidly as possible has resulted in major changes in transportation and communications systems. This program examines the effects of these changes in transportation and communication by addressing the question "Why is the world shrinking?" It focuses on a case study in Australia, a country in the region of Australia/New Zealand.

The introductory material contains a brief overview of changes in transportation between Australia and the United States. This sets the stage for considering why the world is shrinking. While distance can be measured in miles and kilometers, it can also be measured in time. With improvements in transportation and communication, the physical distances between places does not change, but the time-distance does. This has the effect of bringing Australia closer and closer to other places in terms of travel time.

The case study in this program focuses on a wholesale florist and his family living near Brisbane, Australia. It makes five important points.

1. Transportation and communications systems link places together.
2. Improvements in these systems bring the places closer together in terms of time-distance.
3. Places that are brought closer together in time distance can interact more easily than they did before the improved linkages existed.
4. This interaction permits greater access to places and products around the world.
5. This access affects the places that are linked.

The program also considers examples of situations in which transportation improvements have had a positive effect on people in Mexico and Canada. It also illustrates how the elimination of transportation links in the United States can actually move places farther apart in terms of time distance.

The program ends by asking students to consider how people's lives are affected by changes in transportation and communication.

Glossary of Terms

communications—The means by which ideas or messages—in oral or written form—are moved between places.

International Date Line—A line that generally follows the 180 degree meridian (line of longitude). The time zone on its west side is one calendar day ahead of that on the east side of the date line.

Northern Hemisphere—The half of the earth north of the equator.

time-distance—The amount of time involved in moving between two places.

transportation—The means by which goods and people are moved between places.

Southern Hemisphere—The half of the earth south of the equator.

Before the Program

Ask students to read the case study that appears on the handout for this lesson. Have them answer the following questions about the case study. You might have them write up their answers in paragraph form.

1. Why are developments in transportation so important to Australia? *(They are important because of Australia's isolation from the rest of the world.)*
2. How has time-distance (defined in the Glossary) between Australia and the rest of the world changed? *(Time-distance has been reduced by the use of modern means of transportation and communication—airplanes, fast ships, and telephones.)*
3. Speculate about the consequences for the Australians of this reduced travel distance. *(Accept any reasonable response.)*

Tell students that this program asks the question, "Why is the world shrinking?" It is about changes in transportation and communication and the impact that they have on time-distance between Australia and the rest of the world. The program also considers how people's lives are affected by changes in time-distance.

During the Program

At the end of the introductory material (approximately three minutes), you may wish to stop the tape and ask students to locate on a map the countries in which the case study and comparative examples are set. You may also ask them to identify and describe the issue to be considered in the program. Have them speculate about why the issue featured is a concern in the region highlighted in the program.

After the Program

A. Questions for Discussion

1. This program asks the question, "Why is the world shrinking?" How would you answer this

question now that you have seen the program? *(Changes in transportation and communication sometimes reduce the time-distance involved in moving between places. This has the effect of moving these places closer together in terms of travel time.)*

2. What types of transportation and communication changes were described in the program? *(Mainly changes in air travel and telephone communication.)*
3. Why do you think the florist in the United States ordered flowers from Australia? *(It was winter in the United States. The florist may not have been able to get the supplies he needed from U. S. sources. In Australia, it is summer time and fresh flowers are available. A telephone call to a wholesale supplier in Australia is quick and easy to make. Also, the flowers can get to the United States in less than two days, still fresh.)*
4. Why are vacationers only now able to enjoy Cancún, Mexico? *(Because transportation improvements have recently reduced the time-distance between Cancún and the places vacationers live—the United States, Canada, and Europe, for example. This has had the effect of bringing Cancún closer to potential vacationers, making it easier for them to get to Cancún.)*
5. Why are Canadian lobster fishermen in Nova Scotia able to sell their fresh, live lobsters in France? *(Because improvements in transportation and communication have reduced the time-distance between Nova Scotia and France. This has had the effect of bringing those places closer together. The French market is now easier to reach from Canada.)*
6. Why is it possible to say that "the world is stretching" when a bus route joining two places is cancelled? *(Because this type of transportation change increases the time-distance between the places joined for bus riders. This has the effect of moving these places farther apart for these people, making travel much more difficult.)*
7. How are people's lives affected by changes in transportation and communication? *(Accept all reasonable responses.)*

B. Local Community Application

1. Summarize what has been considered so far in this lesson. *(The earth's surface can be thought of as a sheet of malleable material. As a result of changes in transportation and communications systems, it can shrink or it can stretch.)*
2. Use the following steps to conduct the local community application activity:
   - Have students identify the transportation and communications systems that link your community to other places. *(They might identify systems such as highways, telephones, mail service, bus lines, trains, or airlines.)*
   - Invite someone from your local Chamber of Commerce to class. Ask the representative to discuss your town's transportation and communications connections to other places and the significance of these connections. Have students find out what plans are being made to assure that your community will be "plugged into" the best existing transportation and communications systems in the future. For example, what is being done to expand airline service between your community and other places?
   - Have students prepare reports based on what they learn that addresses the question, "How have (or will) changes in transportation and communications affect the lives of people in our community?" Students should be encouraged to complete the assignment in a variety of ways. The report might be in written form, drawn as cartoons, put on an audio or videotape, expressed as a play or television show, or in any other appropriate medium.

C. Other Follow-up Activities

1. In the video program Ron Walker, the Australian florist says, "You've got the International Date Line to consider." But how many people consider the International Date Line, or even understand it? Have students do some library research on the International Date Line. Ask them to report on their findings using a medium of their own choosing, a drawing, an essay, or cartoons, for example. The purpose of the report should be to help other people understand what the International Date Line is and how it affects east-west movement across the Pacific Ocean.
2. There are very few airlines that are more closely identified with their home countries than Qantas is with Australia. Have students contact a Qantas office and request information about the airline. Ask students to create displays for the class bulletin board that illustrate Qantas' growing global connections—air routes and schedules, use of toll-free numbers, and historical development are a few examples.

Here are some addresses for Qantas.

Honolulu: Waikiki Trade Center, 2255 Kuhio Avenue

Los Angeles: 3550 Wilshire Blvd, Suite 1034

San Francisco: 350 Post Street

Toronto: 80 Bloor Street West, Suite 1704

Vancouver: 1055 Dunsmuir Street, Suite 1714

Washington, D.C.: 1825 K. Street, Suite 1210AT&T

Stock footage for "Australia/New Zealand: Why Is the World Shrinking?" has been obtained from the following sources.

ATV—The Atlantic Television System, Halifax, Nova Scotia

FONATUR—Mexico's National Trust Fund for Tourism Development

Hyatt International Hotels & Resorts

International Telecommunications Satellite Organization

International Air Transport Association

J. Walter Thompson USA

Japan Information Service, Consulate General of Japan

Mexicana Airlines

Qantas Airlines

Travelview International

Visnews Limited

North Africa/Southwest Asia: What Are the Consequences of Change?

Place

People are constantly exposed to innovations—new ideas and techniques. Every spring farmers are urged to use a new herbicide to combat weeds. Almost daily families are urged to purchase new products. Teachers are regularly approached by salespeople describing the virtues of a new textbook.

When people adopt an innovation or begin to use it, there are always consequences. The consequences are the results or effects of adopting the innovation. While there is a tendency to assume that most innovations are "good" for the people who adopt them, that is not always the case. Sometimes the consequences of change cannot be anticipated.

Program Summary

Water is a resource used by people everywhere. People in some parts of the world, especially the women, spend a great deal of time getting water, a basic human need. Often the water is not clean, and it is dangerous to drink.

Today, efforts are being made to improve water supplies through new methods of obtaining and storing water. When new methods are adopted, there are always consequences.

This program addresses the question "What are the consequences of change?" It focuses on a case study related to water in Tunisia, a country in the region of North Africa/Southwest Asia.

A brief overview of the importance of water in North Africa/Southwest Asia sets the stage for a consideration of the consequences of adopting new methods of managing water.

The case study in this program focuses on a family living near the city of Kairouan, south of Tunis, in central Tunisia. It makes five important points.

1. Getting enough water has always been a challenge in this region.
2. People's lives are profoundly affected by an uncertain water supply.
3. When the people adopt a new method for handling water by installing a government-supported well, they receive a constant supply of fresh, clean water.

4. When this new technology is adopted, there are a number of consequences.
5. Water is a limited resource that must not be wasted.

The program also considers examples in which new methods of handling water are adopted in Australia, Brazil, and the United States. In each case—the Wivenhoe Dam on the Brisbane River in Australia, the Itaipu Dam on the Parana River dividing Brazil and Paraguay, and the dams and waterways in the Central Valley of California—the consequences of adapting new methods of water management are also considered.

The program ends by asking students to consider how people's lives are affected by change.

Glossary of Terms

aqueduct—A system of tubes, pipes, channels, and support structures through which water is carried from a source to where it is needed. The force of gravity is usually used to carry the water.

basic human needs—What is absolutely necessary for humans to survive. Among these needs are the needs for oxygen, water, food, elimination of wastes, and rest and sleep.

consequence—An effect or result that follows from an action.

irrigation—The artificial distribution of water by the construction of channels from the water source or storage place to the farm fields where water is needed.

nomads—Members of a migratory group whose way of life is based on animal herding.

pomegranates—The edible fruit of a pomegranate tree. This fruit has a tough, reddish rind. It contains many seeds enclosed in a juicy, red pulp with a mildly acid flavor.

Before the Program

Ask students to examine the map that appears on the handout for this lesson. Be sure that they understand what the symbols mean on the map.

Have students write paragraphs describing what the map says about the natural setting of this region. *(Their paragraphs should indicate that North Africa/Southwest Asia is a dry area covered by a vast expanse of deserts and dry grasslands.)*

Then have students speculate about major issues faced by people in this region. Ask them, "Based on what the map says about the natural setting, what do you think is the major concern faced by people in this region?" *(Accept all speculative statements and record them for later use.)*

Tell students that this program asks the question, "What are the consequences of change?" It is about the way people in the region deal with a major concern.

During the Program

At the end of the introductory material (approximately three minutes), you may wish to stop the tape and ask students to locate on a map the countries in which the case study and comparative examples are set. You may also ask them to identify and describe the issue to be considered in the program. Have them speculate about why the issue featured is a concern in the region highlighted in the program.

After the Program

A. Questions for Discussion

1. Why is North Africa/Southwest Asia called the "Dry World"? *(Because it receives very little rain. As a consequence, it is covered with deserts and dry grasslands.)*
2. Based on what you saw in this program, what would you now say is the major concern faced by people in this region? *(Water. Give students a chance to review the list of speculative statements generated earlier. Point out that while people in this region have many concerns, water is a major concern of everyone.)*
3. What were some of the examples used by the grandfather of Rasheed (the boy in the case study) to illustrate that finding enough water had always been a challenge in this area? *(The fact that the Romans built elaborate aqueducts to carry water from the mountains; the fact that women and children spent so much time carrying water; the fact that people in the area had been nomads—constantly moving their flocks in search of water.)*
4. What did Rasheed's father do to change the way in which his family handled their water problem? *(He built a modern well, with government help.)*
5. What were some of the consequences for Rasheed's family of adopting a new way of handling water? *(They had a constant supply of fresh, clean water. They could depend on their pomegranate harvest to earn money. People were healthier. His mother had more time to do other things, such as weaving. Rasheed had time to go to school and study.)*

GLOBAL GEOGRAPHY

Program Outline and Textbook Correlation

Each ***Global Geography*** program features a world **region** and dramatizes an **issue** important to a **topic** usually treated in geography textbooks. Each program is based on one of the five fundamental **themes** of contemporary geographic education and involves students in the use of important **geographic skills.** The heart of each program is a **story line** based on a case study featuring a family with young teenagers in a particular **setting. Comparative examples** show how the issues affect other people in other regions. The outline shows how these elements have been combined in each program, and charts the specific region, setting, topic, issue, theme, skill, story, and examples that are featured in each program.

The **name** of each program comprises the **region** and the **issue.**

Global Geography programs and lessons correlate strongly with the most widely-used middle school geography textbooks. The final page of the outline matches the content of the programs with chapters or units in 14 of the textbooks listed below. The editions chosen are the most recent copyrights in widespread use in the United States. The abbreviations in boldface are those used on the matrix.

Allyn and Bacon, Inc.
World Geography, Herbert H. Gross, 1986. **A & B**

D. C. Heath and Company
World Geography, Charles F. Gritzner, 1987. **Heath (1)**
The World Past to Present, Barbara Radner Reque, 1987. **Heath (2)**
The World Today, 1987. **Heath (3)**

Laidlaw Brothers, Publishers
World Geography: A Physical and Cultural Approach, James L. Swanson, 1987. **Laidlaw**

McGraw-Hill School Division
World Geography, Gary Manson, 1989. **M-H**

Charles E. Merrill Publishing Co.
World Geography: People and Places, Francis P. Hunkins and David G. Armstrong, 1984. **Merrill**

Scholastic Inc.
World Geography, Robert A. Harper and Joseph P. Stoltman, 1988. **Scholastic**

Scott, Foresman and Company
Eastern Hemisphere, Dr. Joan Schreiber et al. 1983. **S, F (1)**
Our World Yesterday and Today, Dorothy Drummond and Bruce Kraig, 1988. **S, F (2)**
People on Earth: A World Geography, D. Drummond and R. Drummond, 1986. **S, F (3)**
Western Hemisphere, Joseph Stoltman, 1988. **(not correlated)***

Silver Burdett Company
Europe, Africa, Asia, and Australia, Kenneth S. Cooper, 1982. **SB (1)**
Canada and Latin America (Western Hemisphere), Gary Elbow, 1982. **(not correlated)***
A World View, Clyde P. Patton et al., 1987. **SB (2)**

Teacher's College Press
Global Geography, Alan Backler and Robert Hanvey. **TCP**

*Programs 1, 2, 6 and 7 contain comparative examples from Central and South America. Programs 1, 5, 6, and 10 contain comparative examples from Canada.

Agency for Instructional Technology
Box A, Bloomington, Indiana 47402

GLOBAL GEOGRAPHY Program Outline

Region	Setting	Topic	Issue	Theme
South Asia	Nepal	Forest Resources	Why Are Forests Disappearing?	Place
Southeast Asia	The Philippines	Food Resources	How Does Change Occur?	Movement
Japan	Japan	Trade	Why Does Trade Occur?	Movement
Soviet Union	Soviet Union	Meeting Human Needs	Why Does Planning Occur?	Location
East Asia	China	Population	Why Do People Live Where They Do?	Location
Australia/ New Zealand	Australia	Trade	Why Is the World Shrinking?	Movement
North Africa/ Southwest Asia	Tunisia	Change	What Are the Consequences of Change?	Place
Africa—South of the Sahara	Kenya	Meeting Human Needs	How Do People Use Their Environment?	Relationships within Places
Central and South America	Brazil	Population	Why Do People Move?	Movement
Europe	The Netherlands	Land and Water	How Do People Deal with Natural Hazards?	Relationships within Places

Major Skill	Story Line	Comparative Examples
Making Inferences from Graphs	Deforestation forces Shankar and his family to go far to find wood.	Kenya, Brazil, West Germany, Canada
Obtaining Information from Line Graphs	Change agent enlists aid of village headman to persuade a farmer to change growing methods.	India, Guatemala, United States
Obtaining Information from Cartograms	Urban family's food, clothes, goods, and work depend on trade.	West Germany, Kenya, United States
Asking Geographical Questions	Two Siberian families show how Soviet planning has developed timber and coal industries.	Netherlands, Japan, United States
Preparing and Obtaining Information from Area-Value Maps	Children on cooperative farm learn why Eastern China is heavily populated, the West less so.	Egypt, Japan, Canada
Collecting and Assessing Information	Wholesale florist enlists his children's aid to respond to a telephone order from the U.S.	Mexico, Canada, United States
Using Map Reading Skills	Rashid's family has more leisure and can grow more pomegranates since they had a well drilled.	Brazil, Australia, United States
Obtaining Information from Maps	Peter grew up on arid Mt. Marsabit. His son wants to learn to help his area's problems with scarce water.	Japan, France, United States
Obtaining Information from Bar Graphs	Family's children can go to school and get medical care since they moved to the city.	Malaysia, Netherlands, United States
Making Inferences from Maps	A mother tells her children about being in a terrible flood when she was young.	Bangladesh, Japan, Canada

Textbook Correlation

A & B 86	Heath (1) 87	Heath (2) 87	Heath (3) 87	Laid-law 87	M-H 89	Mer-rill 84	Schol-astic 88	S, F (1) 83	S, F (2) 86	S, F (3) 86	SB (1) 82	SB (2) 87	TCP 86
Unit	Ch.	Ch.	Ch.	Ch.	Ch.	Ch.	Ch.	Ch.	Ch.	Ch.	Ch.	Ch.	Ch.
7, 10	3, 15	27	2, 15	22, 23, 24	8, 20	22	32, 35, 42	25, 26	1, 18, 20	6, 25	18, 21	22, 26	1, 19
6, 10	15	27	2, 17	28, 29, 30	7, 9, 22	24 25, 27, 29	32, 18, 35, 21 41	25, 27, 29	18, 21	8, 26	18, 21	23, 26	18, 21, 22
10	6, 14	26	18, 21	25, 26, 27	19	23	38	25, 27, 29	18, 22	9, 27	18, 21	21, 27	16, 17, 20
9, 10	4, 6, 13	21	22, 23	13, 14, 15	16	16, 27	20,21, 23, 42	16,17, 18,19, 20	9, 13	6, 8, 22	9, 10, 11	14, 26	8, 11, 14
8, 10	6, 14	26	18, 20	25, 26, 27	6, 17, 18	5, 23	37	25, 27	2, 18, 22	7, 27	18, 21	20	2, 22
11	18	28	27	31, 32, 33	33	25	39	30	2, 18, 21	9, 29	18, 21	25, 27	12, 16
3, 12	1, 4, 16	23	1, 2, 13	16, 17, 18	23	3, 17	24, 27, 42	2, 21, 22	1, 14, 16	6, 30, 31, 32	12, 14	15, 26	7, 13, 21
3, 13	1, 14, 17	25	1, 9, 10, 11	19, 20, 21	27, 28	19	28, 29, 31	2, 21, 22	1, 14, 15, 17	8, 30, 31, 32	15, 16, 17	17, 26	9
14	10	29	5, 8	7, 8, 9	36	11	10, 12, 14		23, 26	16, 17, 18		8	5
9	1, 11	17	1, 24, 25	10, 11, 12	11	3, 13	3, 15, 19	12	9, 11	19, 20, 21	6, 7, 8	10	24

6. Why did Rasheed's grandfather warn him not to waste water? *(With their new well, water seemed plentiful. But it was important for Rasheed to realize that water, especially in this region, is a limited resource.)*
7. What were some of the consequences for farmers when the Wivenhoe Dam was built in Australia? *(The water could be managed and became available for cattle and irrigation when it was needed.)*
8. What were some of the consequences of building the Itiapu Dam in Brazil? *(Electricity could be produced for surrounding areas. The developers also hoped that the availability of electricity would attract industry to the area.)*
9. What were some of the consequences of building dams and waterways in the Central Valley of California? *(Water was available for irrigating farmers' fields, for recreational purposes, to generate electricity, and for wildlife preserves.)*
10. How are people's lives affected by change? *(Accept all reasonable answers.)*

B. Local Community Application

1. Summarize what has been considered so far in this lesson. *(Water is a precious, but limited resource. In many parts of the world, people spend much of their time getting water that is probably not clean. When new methods are used to handle water, the supply improves. There are always consequences when a new idea or method is adopted.)*
2. Use the following steps to conduct the local community application activity.

   Communities all over the United States and Canada need to find new ways to guarantee their citizens a continued supply of fresh, clean water. Have students identify an example of where this is happening in your area. You may decide to focus on your city, county or somewhere in your state or province. (Officials of your local water department can help identify an appropriate example.)

   - Identify the governmental agency responsible for water in the example chosen and

invite a representative of that agency to come to your class.

- Have students prepare questions before the representative comes to class. *(They might ask, "Where does the water you plan to use come from? Is it surface water or ground water? What methods will be used to tap that water? What are the consequences of adopting that method of tapping the water?")*

3. Have students prepare a display about water problems in your area, based on information obtained from the guest speaker and other sources.

4. Rephrase and pose the question that appears at the end of the program: "What are some of the possible consequences of adopting new methods of handling water for people living in our area?" *(Accept all reasonable answers.)*

C. Other Follow-up Activities

1. A great deal of attention has been given in recent years to what has been called, "water wars." People in northern California are up in arms because of the plan to carry water from the Sacramento River south to Los Angeles. Los Angeles officials argue that they will face a water shortage within a few years. People in northern California feel that diverting water from the Sacramento River will create a wasteland in their area.

   Have students find newspapers and magazine articles dealing with this situation. Have them consider such questions as, "What is the plan being proposed by the Los Angeles officials to guarantee a continued supply of fresh clean water for their community? What are the consequences of adopting this plan for people in Los Angeles and in northern California? What are the consequences of not adopting this plan?" Have students use the *Readers' Guide to Periodical Literature,* available in most libraries, as a source of articles.

2. Junior high and middle school students are often "geographic illiterates." This means that they don't have any place-name knowledge. Teachers argue that it is difficult to teach about North Africa/Southwest Asia, for example, when students don't know which countries are in the region or where they are located. These teachers are correct.

   To help students become familiar with the countries of this region and their locations, you might try the following activity. (You will need to distribute blank outline maps of the region, and you will also need data for the region's countries, such as that which appears in the *World Population Data Sheet.*)

   Ask students a series of questions about the region's countries that can be answered by examining the data sheet. Then have them plot their answers on the map, using an atlas as a guide. You might ask,

   - Which three countries in the region contain the most people?
   - Which three countries have the lowest rate of natural increase?
   - Which five countries in the region are the poorest, as measured by low per-capita Gross National Product (GNP)?
   - Which countries have the highest percentage of their population living in cities?
   - Which countries in the region have doubling times of less than 30 years?

World Population Data Sheet is available from:

Population Reference Bureau, Inc.,
2213 M Street, NW,
Washington, D.C. 20037.
Phone (202) 785-4664.

Stock footage for "North Africa/Southwest Asia: What Are the Consequences of Change?" has been obtained from the following sources.

U.S. Committee for UNICEF

U.S. Department of Interior,
Bureau of Reclamation

Visnews Limited

Africa—South of the Sahara: How Do People Use Their Environment?

Relationships Within Places

Different people may view the same element of their environment quite differently. Their various perceptions affect the uses to which they put it. Consider rocks, for example. Most people think that rocks are for climbing over, sitting on, throwing, or placing in a garden. But to mineralogists and geologists, rocks are sources of minerals and metals. They are elements of the environment that are critical to the operation of a modern industrial society.

Groups of people will also develop changing views of an environmental element over time. Again, perception affects use. For example, a useless area once considered too barren for farming in the United States and Canada later became a major agricultural area when people changed their perceptions of the prairies.

Why do people view or perceive things differently? Their varied personal experiences, avoidances, and attitudes toward nature lead them to view and then use the environment in different, sometimes conflicting, ways.

Program Summary

People use elements of the environment to meet their needs. But often the way they use the environment changes. In some situations, people would like to use the same environmental feature in different ways. This program examines the question, "How do people use their environment?" It focuses on a case study in Kenya, a country in Africa—South of the Sahara.

The introductory segment uses maps, graphs, and pictures from the rest of the program to provide a brief overview of the history of Africa—South of the Sahara. This sets the stage for considering how people use their environment. The maps demonstrate that this region has experienced three distinct historical periods—traditional, colonial, and independent.

The case study in this program focuses on three generations of one family living near Mt. Marsabit, north of Nairobi. It makes three important points.

1. The study area, Mt. Marsabit, has been used in four distinct ways by different groups over time.
2. Each group used the area differently because it perceived or valued it differently.
3. At the present time, several groups are attracted to Mt. Marsabit, each for its own reasons. This has put a strain on the limited water resources of the area.

The program also considers examples of environmental use in Japan, France, and the United States. In each case, it highlights the impact of a group's perception of the way in which the environment should be used.

The program ends by asking students to consider how people's lives are affected by how they use their environment.

Glossary of Terms

Boran—A people who live in southern Ethiopia and northern Kenya. Formerly they were nomadic herders of cattle. Today many Boran are farmers, but still keep cattle.

environment—The sum of the surrounding conditions within which organisms or communities live. The environment can be natural, human-made, or a combination.

environmental perception—The mental image of the physical environment held by an individual or a group.

landfill—The disposal of trash and garbage by burying it under layers of earth.

nomads—Members of a migratory group whose way of life is based on animal herding.

strip mining—The removal of soil, for the purpose of mining, to expose a vein of mineral near the surface of the earth.

Before the Program

Ask students to examine the map that appears on the handout for this lesson. Have them use the following procedure to obtain information from the map.

1. Inspect the title to determine the subject of the map. *(The map is about public water projects in Kenya.)*
2. Decode the symbols. Some are contained in the map legend. Others are not. *(Dots refer to places with government-sponsored, public water projects.)*
3. Examine the scale. It will allow them to describe distances on the map.
4. Use the direction indicator to find north. This will make it easier to find and describe things on the map. *(North is at the top of this map.)*
5. Discover what the map says by answering the following questions.
   - In what part of Kenya can most of the government public water projects be found? *(In the southern part of the country.)*
   - Find Marsabit Water Project in the North Central part of the country. Is there another public water project nearby? *(No, the map scale indicates that Marsabit is at least 100 miles from the next closest water project.)*
   - What does the distance between water projects suggest about the environment around Marsabit? *(It is probably quite dry and/or few people live near there.)*

Tell students that this program asks the question, "How do people use their environment?" It is about Mt. Marsabit and about how people have used its water supplies over time.

During the Program

At the end of the introductory material (approximately three minutes), you may wish to stop the tape and ask students to locate on a map the countries in which the case study and comparative examples are set. You may also ask them to identify and describe the issue to be considered in the program. Have them speculate about why the issue featured is a concern in the region highlighted in the program.

After the Program

A. Questions for Discussion

1. How was Mt. Marsabit viewed by different groups, over time? *(The Boran herdsmen viewed Mt. Marsabit as an island of grass, trees, and water in the desert. The English viewed it as a cool mountain area where water was available. The Boran farmers viewed it as the best farmland in the area. Merchants, bankers, and others viewed it as a place where a lot of potential customers were available.)*
2. How did each group's perception or view affect how Mt. Marsabit was used? *(Because of the herdsmen's view of the mountain, they used it for pasture and as a watering place. The British view led to their establishment of a town on the mountain. The farmers' view led to the selection of Mt. Marsabit as the place to set up farms. The merchants, bankers, and others set up shops on Mt. Marsabit because they viewed the place as having potential for business.)*
3. How did the people's view of the bay, next to the Mazda parking lot in Japan, change over time? *(Originally, it was viewed as just that, a bay. But as space for parking cars that were waiting to be loaded onto ships became scarce, this view changed. People began to see it as a place that could be used to expand the parking lot. So they made it into a parking lot.)*
4. What were the two conflicting views of the French landfill shown in the program? *(One group saw the landfill as a partial solution to Paris's waste disposal problem. The other group viewed the landfill as an inappropriate use of the environment.)*
5. How did people's view of the Indianapolis train station, a feature of the urban environment in the United States, change over time? *(At one time, the location was viewed as a transporta-*

tion center. But, when passenger trains were no longer a major means of transportation, the perception changed. The station was then viewed as a potential site for recreation and shopping. Now it has been restored with that new perception in mind.)

6. How are people's lives affected by the way they use their environment? *(Accept all reasonable responses.)*

B. Local Community Application

1. Summarize what has been considered so far in this lesson. *(Different people may view the same element of the natural or human-made environment in quite different ways. Also an element of the natural environment may be received differently by different groups of people over time.)*
2. Use the following steps to conduct the local community applications activity.
   - Identify a conflict that occurred, or that is occurring, in your community, about land use. For example, should a particular piece of downtown property be used for a parking lot or a park? Should the garbage dump be located here or there? Should boating be permitted on the local reservoir?
   - Assign students to represent the various "sides" of the conflict. Have them do some research on the side they represent, in the local newspapers and through interviews.
   - Stage a debate in which opposing views on the conflict are aired and considered by the students. Help students understand that there is a relationship between the way they view the environment and the way they propose to use it.
3. After the debate, have students consider the following question, rephrased from the program, "How does the way in which the environment is viewed and used in our community affect people's lives?"

C. Other Follow-up Activities

1. Junior high and middle school students are often "geographic illiterates." This means that they don't have any place-name knowledge. Teachers argue that it is difficult to teach about Africa—South of the Sahara, for example, when students don't know which countries are in the region or where they are located. These teachers are correct.

   To help students become familiar with the countries of this region and their locations you might try the following activity. (You will need to distribute blank outline maps of the region, and you will also need data for the region's countries, such as that which appears in the *World Population Data Sheet.*)

   Ask students a series of questions about the region's countries that can be answered by examining the data sheet. Then have them plot their answers on the map, using an atlas guide. You might ask
   - which three countries in the region contain the most people?
   - which three countries have the lowest rate of natural increase?
   - which five countries in the region are the poorest, as measured by low per-capita Gross National Product (GNP)?
   - which countries have the highest percentage of their population living in cities?
   - which countries in the region have doubling times of less than 30 years?

   World Population Data Sheet is available from:

   Population Reference Bureau, Inc.
   2213 M Street, NW
   Washington, DC 20037
   Phone: (202) 785-4664.
2. Foreign college students are often willing to share their backgrounds, experiences, cultures, and perceptions with school children in this country. Contact a nearby college to make arrangements for a visit by a student or students from a country in Africa—South of the Sahara.

Stock footage for "Africa—South of the Sahara: How Do People Use Their Environment?" was obtained from the following sources.

Indiana Dunes National Lakeshore
The Martin & Osa Johnson Safari Museum
Norman Miller, African/Caribbean Institute
Department of Interior, National Park Service
United Nations Centre for Human Settlements
Visnews Limited

Central and South America: Why Do People Move?

Movement

Millions of people in the world migrate, or move, each year. There are two types of migration, forced and voluntary. The difference between them depends on who makes the decision to move.

Forced migration occurs when a person or group of people are made to move because of someone else's decision. The movement of slaves to North America from Africa is an example of forced migration.

In voluntary migration, such as the movement of black Americans from the South to the North, the migrants themselves make the decision to leave one place and move to new ones. Voluntary migration results from a decision in which the potential migrant has compared living conditions in the place of origin and in the possible destinations. If a destination is perceived to be significantly more attractive than the original place, migration will take place, but only if barriers to movement, such as costs and immigration laws, can be overcome.

Program Summary

In many parts of the world, people are on the move. Sometimes people move from one place in the city to another, or they move from one place to another within a country. Sometimes they move from one country to another and from one region to another. This program addresses the question, "Why do people move?" It focuses on a case study in Brazil, a country in the region of Central and South America.

Charts, maps, and preview pictures present brief overview of population movement in Central and South America during the introductory section. This sets the stage for considering why people move. The percentage of people living in cities in the region has increased rapidly in recent years. In Brazil much of this increase results from people moving from rural areas to urban areas.

The case study in this program focuses on a family living in Rio de Janeiro, Brazil. It makes three important points.

1. When rural migrants move into urban areas, they tend to settle in certain distinct parts of the city.
2. Migration involves a decision-making process in which potential migrants compare conditions where they are with conditions at potential destinations.
3. People decide to move in an effort to improve life for themselves and their families.

The program also considers examples of people's migration in Malaysia, in the Netherlands, and to the United States. It highlights people's reasons for moving.

The program ends by asking students to consider how people's lives are affected by moving.

Glossary of Terms

emigrant—A person migrating away from a country or area; an "out-migrant."

favela—An unplanned shantytown or slum area on the outskirts or within an urban area in Brazil.

forced migration—Human migration flows in which the movers have no choice but to relocate.

immigrant—A person migrating into a country or area; an "in-migrant."

migration—A change in residence intended to be permanent.

voluntary migration—Population movement in which people relocate in response to perceived opportunity, not because they are forced to move.

Before the Program

Ask students to examine the bar graph that appears in the handout for this lesson. Have them use the following procedure to obtain information from the bar graph.

1. Inspect the title to determine the subject of the graph. *(The graph is about the urban population of Brazil.)*
2. Examine the labels on the X and Y axes to determine what information is displayed in the graph and how it is organized. *(The X axis labels indicate that information about the urban population*

appears for 1950 and 1985. The Y axis label indicates that urban population is presented in percentages.)

3. Compare the lengths of the bars and describe the difference observed. Use the number scale to help make a specific comparison. *(In Brazil 36 percent of the people lived in cities in 1950. By 1985, 68 percent were city dwellers.)*

Tell students that much of this change is the result of people leaving rural areas and moving to urban areas. Indicate that this program asks the question, "Why do people move?" They will meet a family in Brazil that moved from a rural to an urban area, and they will learn why that family moved.

During the Program

At the end of the introductory material (approximately three minutes), you may wish to stop the tape and ask students to locate on a map the countries in which the case study and comparative examples are set. You may also ask them to identify and describe the issue to be considered in the program. Have them speculate about why the issue featured is a concern in the region highlighted in the program.

After the Program

A. Questions for Discussion

1. What are some of the types of migration that occur around the world? *(Some people move from one place in a city to another, some move from rural areas to urban areas, some move from one country to another, and some move from one world region to another.)*
2. What were some of the conditions existing in the countryside that led Mr. Demerval and his family to move to Rio de Janiero? *(They did not own their house or their land. They had to share the crops with the landowner. There was no electricity or tap water. There was no high school and no nearby elementary school or hospital.)*
3. What do you think Mr. Demerval and his family find attractive about Rio de Janiero? *(There is a school and friends for his children. There are jobs available. They have their own house. They have electricity and running water. There are markets to shop at and a hospital close by.)*
4. Why did the people from Malaysia shown in the program decide to move? *(They were living in*

a place where they had no land and few opportunities. They could see no future in that place for their children. They wanted a place where the quality of life was better, where they had steady jobs, money to spend, and their children could go to school.)

5. What were some of the factors that led the people shown in the Netherlands to move from one place to another, within cities? *(They were not looking for better jobs or schools for their children. They were looking for things like a bigger house or different surroundings.)*
6. What were some of the factors that led people to emigrate to the United States? *(Political persecution, religious persecution, war, and lack of job opportunities.)*
7. How are people's lives affected by moving? *(Accept all reasonable responses.)*

B. Local Community Application

1. Summarize what has been considered so far in this lesson. *(People somewhere are always moving. When they have a choice, their decision to move is based on a consideration of living conditions both at the origin and at possible destinations.)*
2. Use the following steps to conduct the local community application activity.
   - Tell students that in this activity they will be collecting and analyzing evidence concerning their own family's migration history.
   - Have students work as a class to develop an interview form to use to gather information. *(They might ask, "Why did my family leave that place? What conditions made them decide to leave? How did they find out about other places?")*
   - Have each student select a family member to interview. Point out that family albums, scrapbooks, and old letters can be used to supplement the information collected in the interview.
   - Once the interview is completed, students should be asked to examine the evidence. They can do this by using a map to plot the places where a family has lived at various times or by summarizing it in essay form.
   - As part of the examination that students make of their migration histories, have them consider the following question, "How has moving affected the lives of people in my family?"

C. Other Follow-up Activities

1. Many immigrants from Central and South America and Asia have recently settled in communities throughout the United States and Canada. Identify some of them in your community. Ask them to talk to your class about their migration: Why did they leave their home land? Why did they choose to settle in your community? What problems did they have in moving, and what problems are they encountering in adjusting to life in the United States or Canada?
2. As an alternative, have students use a modified version of the interview form developed for the local community activity to interview recent migrants to your community from other states or provinces, from rural areas of this country, or from countries in the Western Hemisphere. Ask students to identify similarities and differences in the experience of these migrants.
3. Students can conduct a debate on questions related to migration to the United States or Canada. One question could be stated as follows: "Should the United States (Canada) permit unlimited immigration to occur?"

   A "regulation" debate would include an affirmative and negative position on this question. Students representing each position could do research, prepare a position satement, and speak at the debate.

   The *Reader's Guide to Periodical Literature*, available in most libraries, could be used to identify articles useful in developing positions for a debate. Have students look under the heading "Immigration and Emigration."

Stock footage for "Central and South America: Why Do People Move?" has been obtained from the following sources.

KRGV-TV, Weslaco, Texas
Mennonite Central Committee
Passies International Movers
The Salesian Missions
Shell International Petroleum Co., Ltd.
United Nations Centre for Human Settlements
Visnews Limited

Europe:
How Do People Deal with Natural Hazards?

Relationships Within Places

All places on the earth have both advantages and disadvantages for human settlement. High population densities have developed in flat, low-lying areas near bodies of water, for example. People take advantage of the fertile soils, water resources, and opportunities for river transportation in these areas. Yet such areas are occasionally subjected to severe damage because of inundation by the sea, river flooding, storms, and other natural hazards. People must somehow deal with these natural hazards to continue living in these areas. They do this by modifying or adapting to these natural settings in ways that reveal their cultural values, economic and political circumstances, and technological abilities.

Program Summary

Water, an element of the natural environment, is essential to all people. But sometimes water presents hazards to the very people who need it. This program addresses the question, "How do people deal with natural hazards?" It focuses on a case study in the Netherlands, a country in the region of Europe.

Maps, charts, and pictures in the introductory section present a brief overview of population distribution in Europe. This sets the stage for a consideration of how people deal with natural hazards. Maps highlight the densely settled portions of Europe in general and the Netherlands in particular. Most of the Dutch people live in a part of the country that is at or below sea level. Dikes and dunes protect the country; if these were removed, over one-half of the country would be flooded.

The case study in this program focuses on families living in the southwestern (delta) part of the Netherlands. It makes three important points.

1. This is an area that has been inundated by the sea.
2. The Dutch have responded with a major engineering program to control flooding.
3. As a result of efforts made by Dutch engineers, flooding in the area has been controlled, allowing people to plan with confidence for the future.

The program also considers examples of situations in which people in Bangladesh, Japan, and Canada deal with water-related natural hazards.

The program ends by asking students to consider how people's lives are affected by natural hazards.

Glossary of Terms

dam—A barrier built across a river to control and hold back the flow of water.

dike—An embankment constructed alongside low-lying ground to protect it from flooding by the sea, a lake, or a river.

dune—A hill or ridge of sand formed by the wind.

natural hazard—An element of the natural environment that is harmful or dangerous to humans.

polder—Land previously under the water of a sea or an inland lake; it is reclaimed by constructing of protective dikes and pumping the enclosed area dry.

storm surge barrier—A structure built across a river designed to protect the land behind it from flooding. It contains huge steel doors that are lowered when dangerously high water is expected.

Before the Program

Have students examine the population distribution map that appears in the handout for this lesson. Be sure that students understand what the dots on the map mean.

Have students describe the pattern on the map. Ask students, "Where in this country do most people live?" *(Most people in the Netherlands are concentrated in the western part of the country.)*

Then have students make inferences about Dutch population distribution, based on other evidence contained in the map. Ask them, "Why do you think that the population is concentrated in the western part of the country?" Accept all hypotheses and record for later use. Have them structure their guesses in the form that follows. *(The population of the Netherlands is concentrated in the western part of the country because... their guess.)*

Tell students that this program asks the question, "How do people deal with natural hazards?" Ask them to watch for both the advantages and disad-

vantages of the places described. Mention that the program will let them know which of their guesses about population distribution were correct.

During the Program

At the end of the introductory material (approximately three minutes), you may wish to stop the tape and ask students to locate on a map the countries in which the case study and comparative examples are set. You may also ask them to identify and describe the issue to be considered in the program. Have them speculate about why the issue featured is a concern in the region highlighted in the program.

After the Program

A. Questions for Discussion

1. What are some of the advantages for settlement of the western part of the Netherlands? *(It is the center for trade, business, and agriculture.)*
2. Review hypotheses developed earlier by the students. Which ones are supported by the evidence presented in the program? *(The hypotheses that emphasized the advantages of the western parts of the country for settlement have received the most support.)*
3. What are some of the disadvantages for settlement of the western part of the Netherlands? *(It is mostly below sea level and is therefore subject to occasional flooding by the sea.)*
4. How did the Dutch deal with the natural hazard posed by the sea? *(They built dikes, dams, and a storm surge barrier.)*
5. In terms of the advantages and disadvantages for settlement, how does the western part of the Netherlands compare with the portion of Bangladesh that you saw in the program? *(The disadvantages are the same; both areas are flat and subject to flooding. The portion of Bangladesh seen in the program was used mainly for farming.)*
6. What is the nature of the natural hazard faced by the Japanese, and how have they responded? *(Like the Dutch and the people of Bangladesh, they are threatened by flooding. Like people in both of these countries, the Japanese responded by building dikes to protect the farmland. Also, in some cases, they raised their houses on stone foundations to protect them from flood water.)*
7. How did people in Quebec, Canada, respond to the hazard of mudslides? *(People in Quebec moved their village to another location.)*

8. How are people's lives affected by natural hazards? *(Accept all reasonable responses.)*

B. Local Community Application

1. Summarize what has been considered so far in this lesson. *(Places have advantages and disadvantages for human settlement; people sometimes adapt to or modify environments to deal with certain disadvantages; technology has made it possible to modify the environment more easily.)*
2. Use the following steps to conduct the local community application activity.
   - Have students define the term natural hazards. *(They should describe it as an element of the natural environment that is harmful or dangerous to humans.)*
   - Have them recall the natural hazards identified in the program. *(These are flooding, typhoons, and mudslides.)*
   - Have them identify other natural hazards. *(They could suggest blizzards, droughts, hurricanes, earthquakes, tornadoes, avalanches, infestations, poison ivy, ragweed, and locusts.)*
   - Have students use this list to identify some natural hazards that occur in your community. *(They might mention snow, tornadoes, or floods.)*
   - Have them work in small groups to identify strategies used in your community to deal with these hazards. How are people in your community informed about the threat of various natural hazards?
3. Rephrase and pose the question that appeared at the end of the program: "How have natural hazards affected people's lives in our area?" *(Accept all reasonable responses.)*

C. Other Follow-up Activities

1. Have students find newspaper and magazine stories dealing with natural hazards and have them identify each hazard. Ask them to describe how people in the stories modified their environment or how the people adapted and learned to deal with these natural hazards.
2. Most communities are located close to a river or stream. The government encourages communities to use zoning to restrict land use on floodplains. Have students examine your community's floodplain zoning. How big an area is involved? What is located on the floodplain? Ask students whether they think the government should restrict the areas where people can locate.

Stock footage for "Europe: How Do People Deal with Natural Hazards?" was obtained from the following sources.

Haskoning Royal Dutch Consulting Engineers and Architects

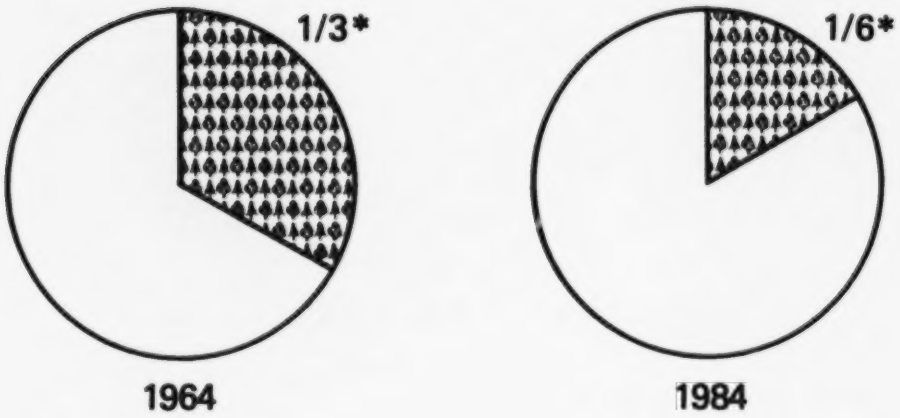
Japan Information Service, Consulate General of Japan

Rijksvoorlightingsdienst

Visnews Limited

South Asia:
Why Are Forests Disappearing?

Nepal: Forests and Woodlands as a Portion of Total Land Area

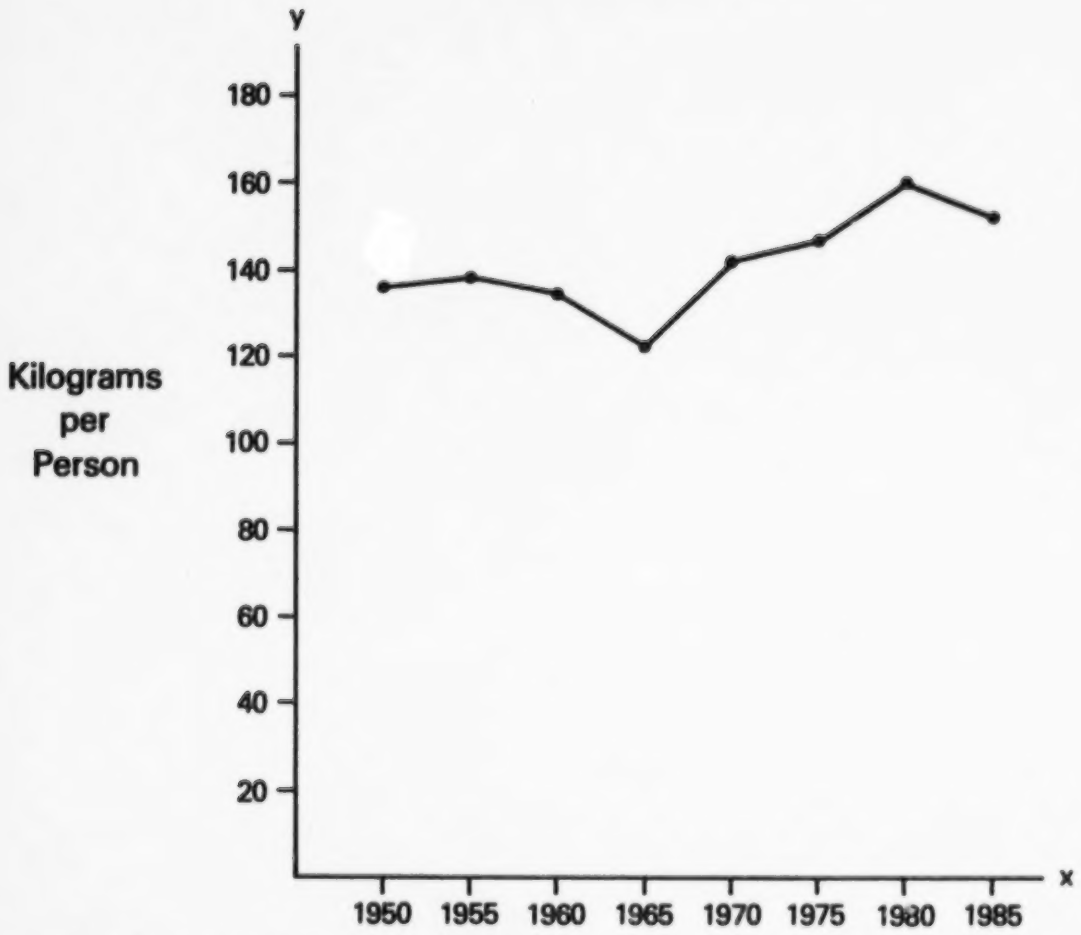


* FAO estimates

Source: Food and Agriculture Organization of the United Nations

Southeast Asia: How Does Change Occur?

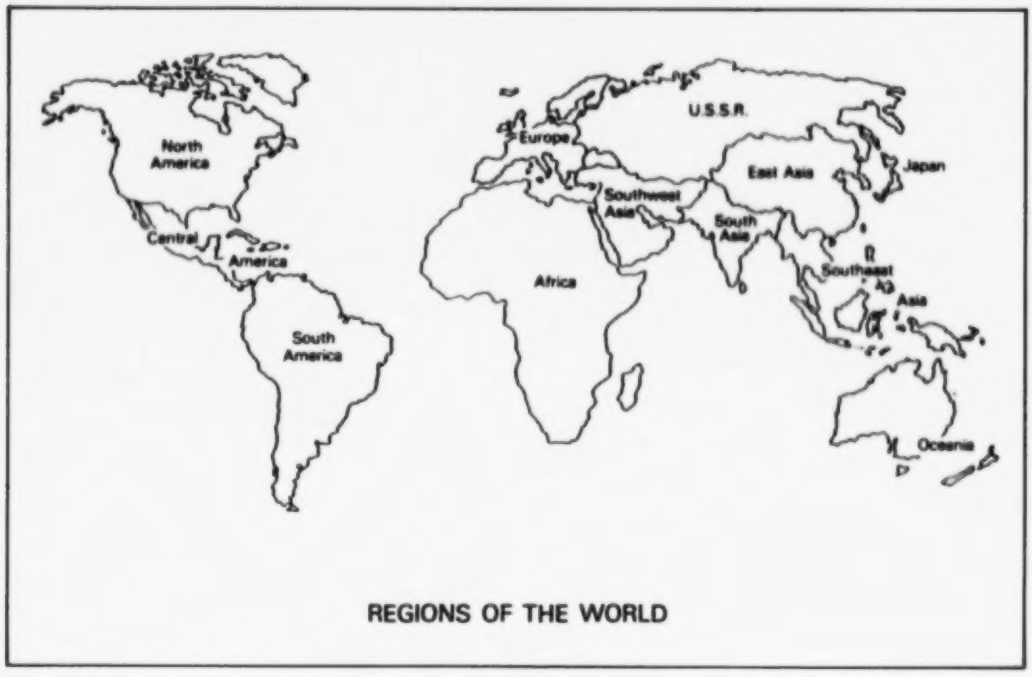
The Philippines: Rice Production per Person



Source: Food and Agriculture Organization of the United Nations.

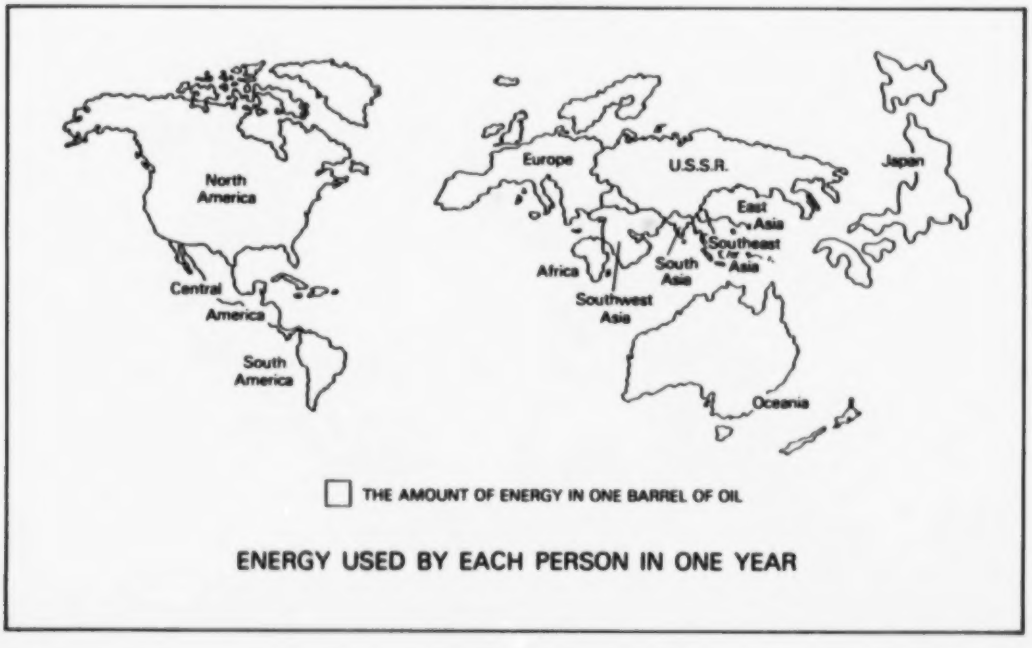
Japan:
Why Does Trade Occur?

MAP 1



REGIONS OF THE WORLD

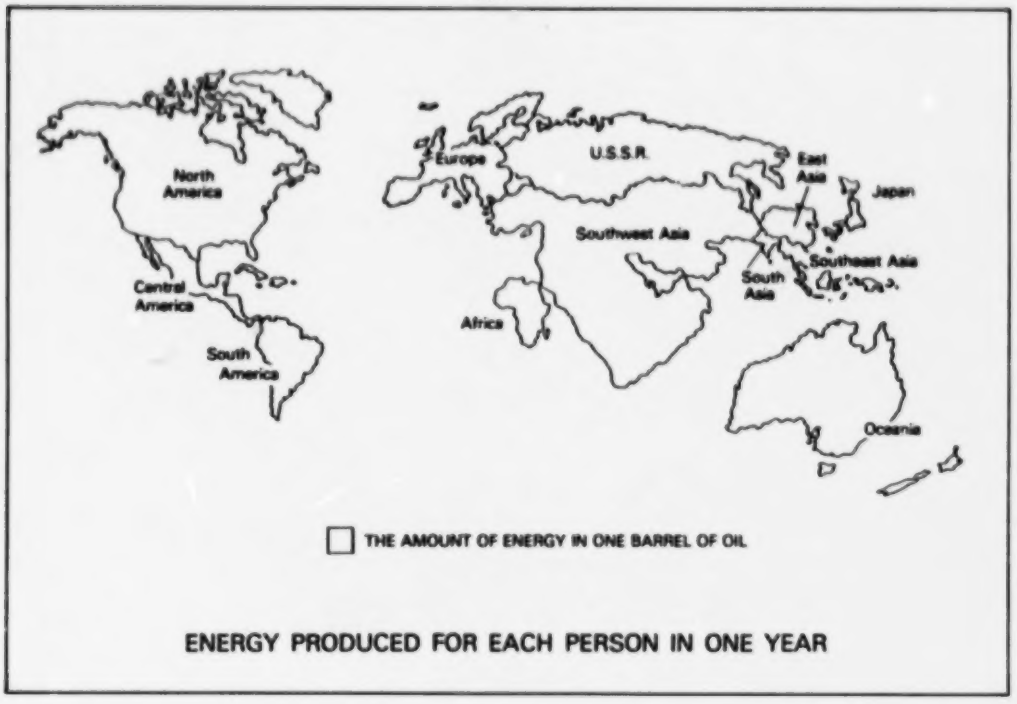
MAP 2



ENERGY USED BY EACH PERSON IN ONE YEAR

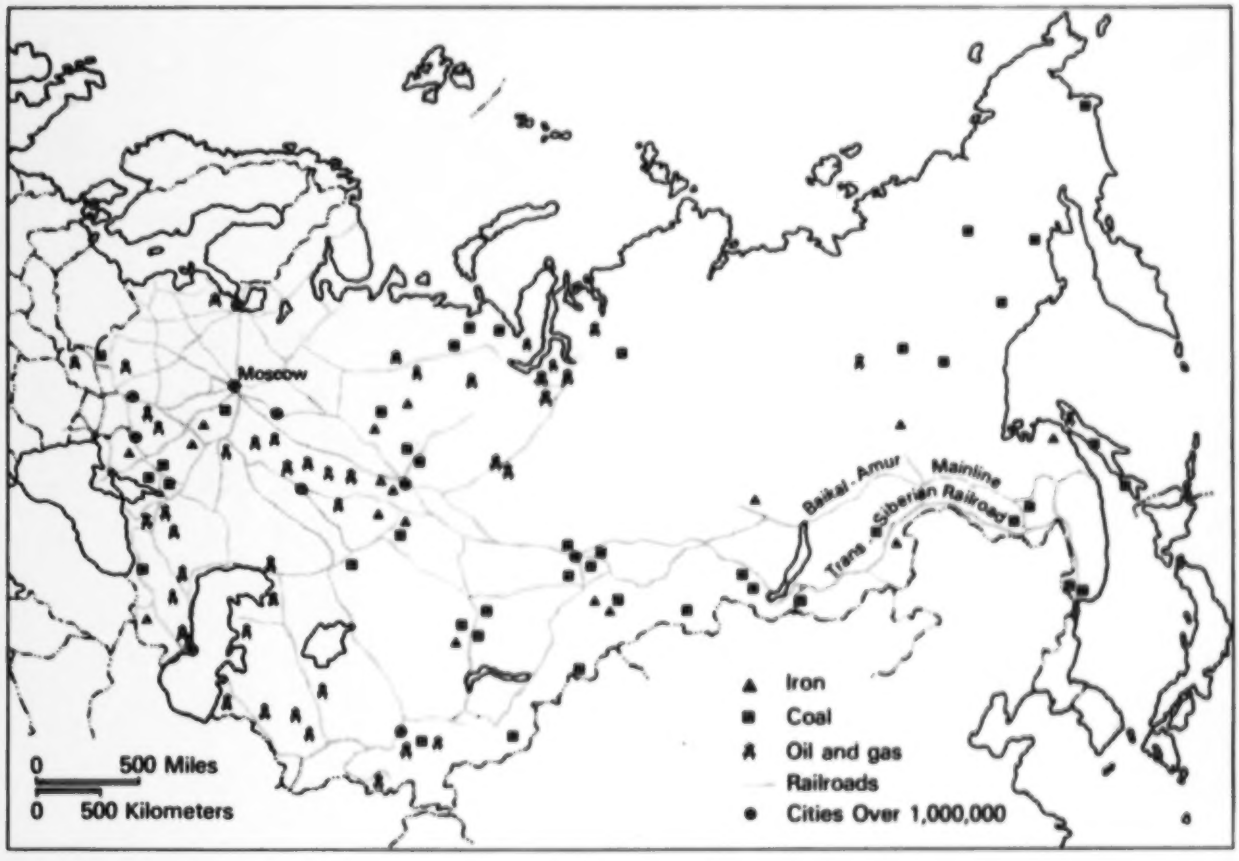
Japan:
Why Does Trade Occur?

MAP 3



Soviet Union:
Why Does Planning Occur?

Soviet Union: Economic Patterns



Soviet Union: Location of Economic Activities, Population, and Resources

	European (Western) Portion,* in percents	Asian (Eastern) Portion, in percents
Fuel and energy resources	9	91
Raw materials	15	85
Timber	23	77
Water resources	20	80
Territory	25	75
Population	74	26
Agriculture	76	24
Industry	83	17

*The European part of the Soviet Union is rich in coal, iron ore, aluminum, and other raw materials. These nonrenewable resources, however, have been depleted over the years in the West. On the other hand, deposits in Asia are now just beginning to be exploited.

Source: Paul English, *World Regional Geography*, John Wylie and Sons, 1984.

East Asia:
Why Do People Live Where They Do?

China: Population Density by Provinces, Autonomous Regions and Province-Level Municipalities, 1982

Provinces, Autonomous Regions, Province-Level Municipalities	Persons per Square Kilometer 1982
NORTHEAST	
Heilongjiang	69
Jilin	120
Liaoning	245
NORTH	
Hebei	282
Shanxi	162
Beijing municipality	549
Tianjin municipality	687
Shandong	486
Henan	446
EAST	
Anhui	356
Jiangsu	590
Shanghai municipality	1,913
Zhejiang	382
CENTRAL	
Hubei	255
Hunan	257
Jiangxi	199
SOUTH	
Fujian	213
Guangdong	280
Guangxi Autonomous Region	158
SOUTHWEST	
Guizhou	162
Sichuan	176
Yunnan	83
Tibet Autonomous Region	1.6
NORTHWEST	
Inner Mongolia Autonomous Region	16
Shaanxi	141
Ningxia Autonomous Region	59
Gansu	43
Qinghai	5
Xinjiang Autonomous Region	8

Source: Population Reference Bureau, *China: Demographic Billionaire*, April 1983.

Australia/New Zealand: Why Is the World Shrinking?

From Winton to the World

The airplane has become vitally important for connecting Australia with other parts of the world. Even before 1920, when air travel was still very new, people dreamed of using the airplane to link Australia with other countries.

To show its interest in the development of air travel, the Australian government offered a large sum of money to the first Australians to fly from England to Australia in thirty days or less. The flight was first made in 1919 by brothers Ross and Keith Smith, who left England on November 12 and arrived at Darwin, Australia, on December 10.

In 1920, Paul McGinness and Hudson Fysh started a small airline in Winton, Australia. The airline was called Queensland and Northern Territory Aerial Services—known from that time on as Qantas.

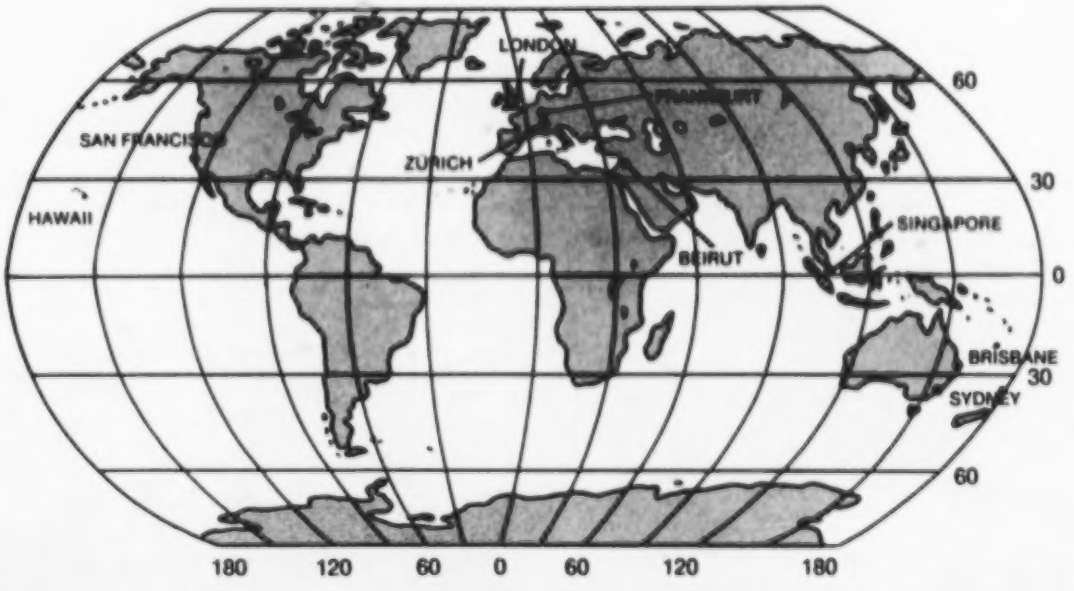
In 1935, Qantas overseas service was begun from Brisbane to Singapore, a distance of 4,360 miles (7015 kilometers). The trip was made with seventeen stops and took 3½ days. The flight then continued on to London, making many more stops along the way. The entire trip from Brisbane to London, a distance of 9,000 miles (14,500 kilometers) took twelve days.

In the late 1940s, Qantas began its first service to Japan. New stops were added to the Sydney-London route, including Beirut, Zurich, and Frankfurt. In the 1950s, air service was extended to the Pacific Islands. In 1956, the night stopover at Singapore on the Sydney-London route was eliminated, cutting travel time from 75 hours to 54½ hours.

After World War II, air service was begun from Australia through the Pacific Islands and Hawaii to San Francisco. Today, jet service from Sydney to San Francisco takes only 16 hours. Island-hopping service between Australia and California had taken more than 83 hours in 1928.

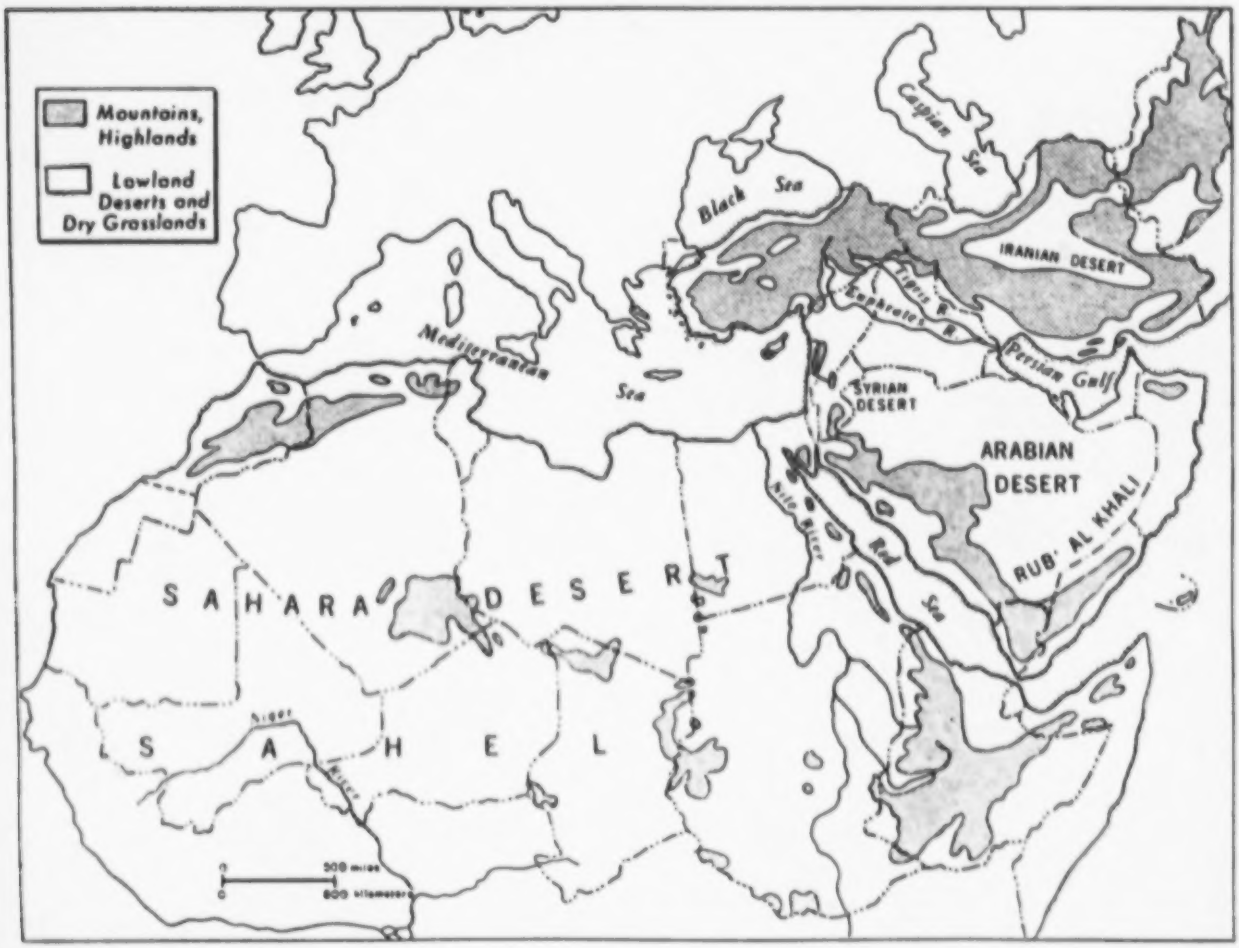
In 1959 Qantas got permission to fly across the United States, and in that same year linked its trans-Pacific and London-Sydney routes. This provided service completely around the world. Today, Qantas flies its average passenger farther than any other airline. It serves dozens of cities and countries and has brought Australia in close touch with the rest of the world.

Australia is now only a matter of hours from any spot on the globe. The small airline begun in Winton in 1920 has grown to one that provides Australia with worldwide connections.



North Africa/Southwest Asia: What Are the Consequences of Change?

North Africa/Southwest Asia: Natural Setting



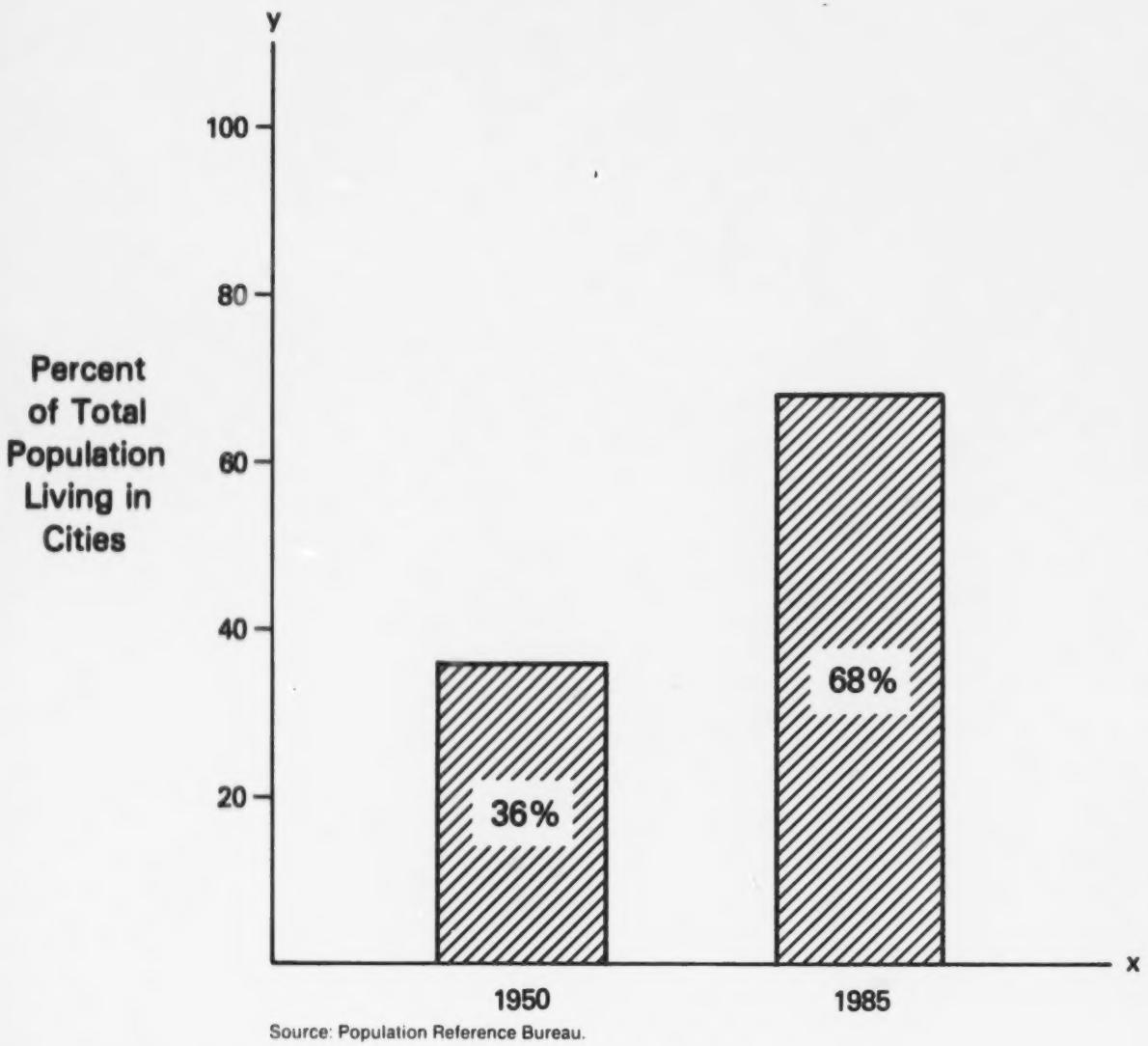
Africa—South of the Sahara: How Do People Use Their Environment?

Kenya: Government Public Water Projects, 1969

Source: *National Atlas of Kenya.*

Central and South America: Why Do People Move?

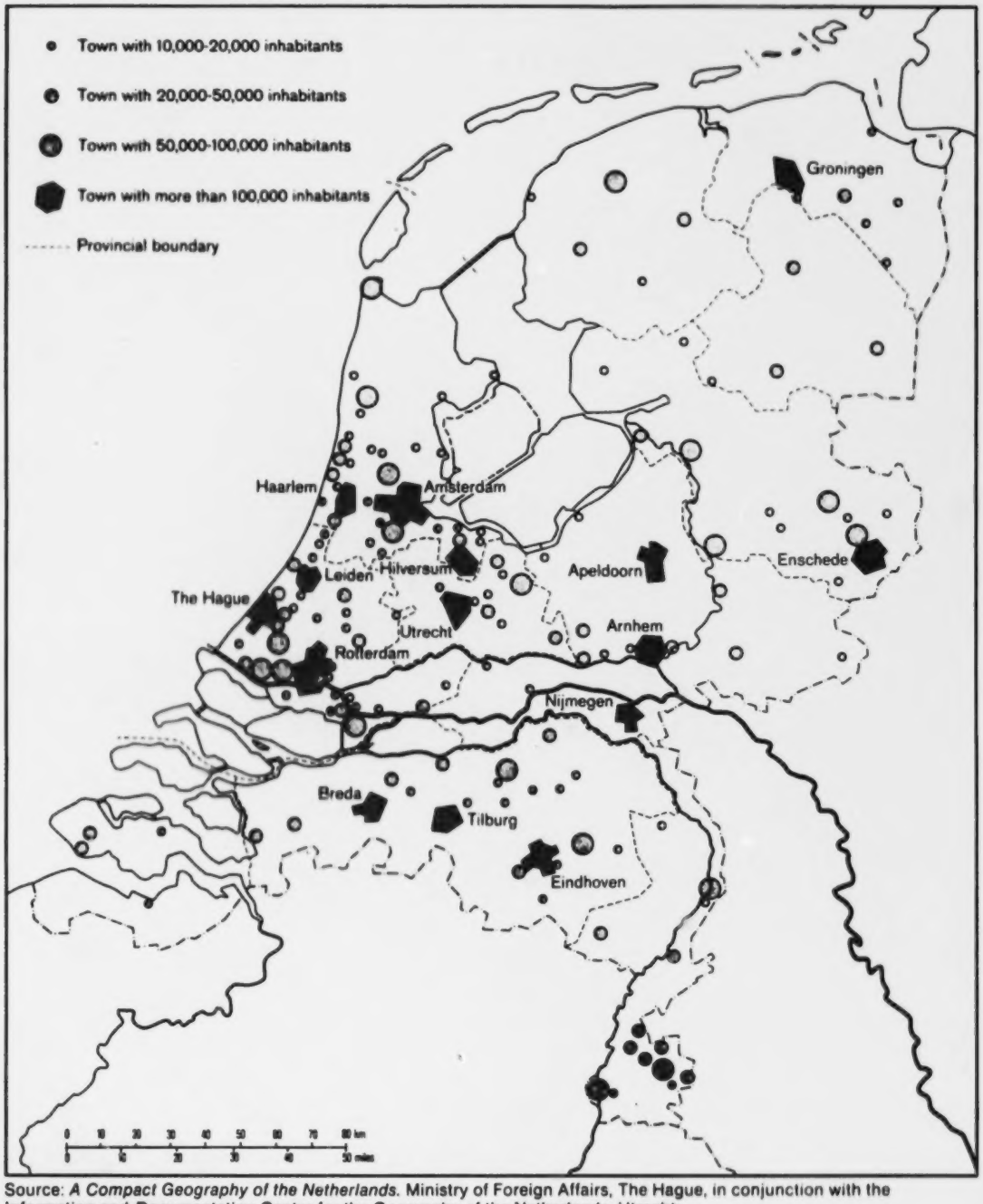
Brazil: Urban Population



Source: Population Reference Bureau.

Europe:
How Do People Deal with Natural Hazards?

Netherlands: Population Distribution



Source: *A Compact Geography of the Netherlands.* Ministry of Foreign Affairs, The Hague, in conjunction with the Information and Documentation Centre for the Geography of the Netherlands, Utrecht.

Further Resources

1. The embassies of most countries will send materials to your students. Here are some addresses.

Embassy of Nepal
2131 Leroy Place NW
Washington, DC 20008
Phone: (202) 607-4550
(Serves both Canada and the United States)

For the United States

The Embassy of Kenya
2249 R Street, NW
Washington, DC 20008

The Embassy of Philippines
1617 Massachusetts Avenue, NW
Washington, DC 20036

The Embassy of Japan
2520 Massachusetts Avenue, NW
Washington, DC 20008

The Embassy of the Soviet Union of
Soviet Socialist Republics
1125 16th Street, NW
Washington, DC 20036

The Embassy of the People's Republic
of China
2300 Connecticut Avenue, NW
Washington, DC 20008

The Embassy of Australia
1601 Massachusetts Avenue, NW
Washington, DC 20036

The Embassy of the Tunisia
2408 Massachusetts Avenue, NW
Washington, DC 20008

The Embassy of Brazil
3006 Massachusetts Avenue, NW
Washington, DC 20008

The Embassy of the Netherlands
4200 Linnean Avenue, NW
Washington, DC 20008

For Canada

The Embassy of Kenya
415 Laurier Ave. East, Suite 600
Ottawa, ON K1N 6R4

The Embassy of Philippines
130 Albert Street, Suite 606
Ottawa, ON K1P 5G4

The Embassy of Japan
255 Sussex Drive
Ottawa, ON K1N 9E6

The Embassy of the Union of
Soviet Socialist Republics
285 Charlotte Street
Ottawa, ON K1N 8L5

The Embassy of the People's Republic
of China
511-515 Patrick Street
Ottawa, ON K1N 5H3

The Embassy of Australia
130 Slater Street, 13th Floor
Ottawa, ON K1P 6H2

The Embassy of the Tunisia
515 O'Connor Street
Ottawa, ON K1S 3P8

The Embassy of Brazil
255 Albert Street, Suite 900
Ottawa, ON K1P 6A9

The Embassy of the Netherlands
275 Slafer Street, 3rd Floor
Ottawa, ON K1P 5H92.

2. Certain college level textbooks can provide teachers with an excellent background to the region considered in each program. Particularly helpful are the following books.

- DeBlij, Harm, and Peter Muller. *Geography: Regions and Concepts*, 4th ed. New York: John Wiley and Sons,1985.
- English, Paul Ward. *World Regional Geography: A Question of Place*. 2d ed. New York: John Wiley and Sons, 1984.
- Benhardt, John E. and C. Robert Scull. *Regions of the World Today*. Dubuque, Iowa: Kendal, Hunt, 1985.

3. **The Dushkin Publishing Group, Inc.,** Guilford, Connecticut 06437, produces an "Annual Edition Series" that includes a volume on geography. The volumes are collections of articles from current magazines, newspapers, and journals. Each volume comes with a teacher's guide. *Geography 87/88* contains several articles related to the issues considered in these programs.

South Asia Program
- "The Acid Rain Whodunit"
- "Tropical Forests: What Will Be Their Fate?"
- "Ravage in the Rain Forests"

Southeast Asia Program
- "The Green Revolution"
- "From Farm to Market: New Policies are Taking Root"

Japan Program
- "America's War on Imports"

Soviet Union Program
- "Managing the World Environment"

East Asia Program
- "Windows on a Changing China"

Australia/New Zealand Program
- "Biggest Construction Jobs of the Twentieth Century" (Deals with the building of an English Channel tunnel and its impact on time-distance)
- "Spatial Form and Spatial Interaction"
- "Transportation and Urban Growth: The Shaping of the American Metropolis"

North Africa—Southwest Asia Program
- "Water and Man"
- "Groundwater: Buried Treasure"

Africa—South of the Sahara Program
- "The Desert's Challenge... and the Human Response: Dimensions and Perceptions"

Central and South America Program
- "Hispanic Migration: Where They Are Moving and Why"
- "The Plight of Stateless People"
- "The Growth of Core Regions in the Third World"
- "Colossal Cities of the Future"

Europe Program
- "America Washing Away"
- "Acid Deposition: Trends, Relationships, and Effects"
- "Is There Life After Strip Mining?"

4. ***National Geographic*** contains excellent articles related to the issues and regions considered in these programs. Among them are

South Asia Program
- "Tropical Rain Forests: Nature's Dwindling Treasures," pp. 2-47, January 1983.
- "At the Crossroads of Kathmandu," pp. 32-65, July 1987.

Southeast Asia Program
- "Hopeland and Danger in the Philippines," pp. 76-117, July 1986.

Japan Program
- "Silk—The Queen of Textiles," pp. 2-49, January 1984
- "Tokyo—A Profile of Success," pp. 606-645, November 1986
- "The Prodigious Soybean," pp. 66-91, July 1987

Soviet Union Program
- "The World of Tolstoy," pp. 758-791, June 1986
- "People of the Long Spring," pp. 206-223, February 1983
- "Ukraine," pp. 595-631, May 1987

East Asia Program
- "Monsoons: Life Breath of Half the World," pp. 712-747, December 1984
- "Peoples of China's Far Provinces," pp. 283-333, March 1984

Australia/New Zealand Program
- "The Tea and Sugar Lifeline in Australia's Outback," pp. 737-757, June 1986
- "El Nino's Ill Wind," pp. 144-183, February 1984
- "Across Australia by Sunpower," pp. 600-607, November 1983

North Africa—Southwest Asia Program
- "Our Most Precious Resource: Water," pp. 144-179, August 1980
- "Tunisia: Sea, Sand, Success," pp. 184-217, February 1980
- "Africa's Stricken Sahel," pp. 140-179, August 1987.

Africa—South of the Sahara Program
- "The Search for Our Ancestors," pp. 560-623, November 1985
- "The Threatened Ways of Kenya's Pokot People," pp. 120-140, January 1982.

Central and South America Program
- "The World's Urban Explosion," pp. 179-185, August 1984
- "Mexico City: An Alarming Giant," pp. 138-175, August 1984
- "Brazil—The Promise and Pain," pp. 348-386, March 1987
- "El Nino's Ill Wind," pp. 144-183, February 1984

Europe Program
- "Man Against the Sea, The Vosterschelde Barrier," pp. 526-537, October 1986
- "They (Bangladesh) Stopped the Sea," pp. 92-101, July 1987.

5. Film and video resources

- **African/Caribbean Institute**
  (Dr. Norman Miller)
  4 West Wheelock Street
  Hanover, NH 03755
  (603) 646-2838
  Catalog available.
  Fee plus mailing cost.

  Films:
  Southeast Asia Program
  Wet Culture Rice
  People Are Many, Fields Are Small

- **Alyeska**
  (John Ruderman, Public Affairs)
  1835 South Bragaw
  Anchorage, AK 99512
  (907) 265-8311
  George E. Lukens, Jr. has films. Contact him at Pendleton Productions, Inc., Box 110349, Anchorage, AK 99511

  Films
  Soviet Union Program
  Pipeline
  Permafrost

- **Australian Information Service**
  Australian Consulate-General
  New York: 636 5th Ave.
  New York, NY 10111
  (212) 245-4000

  San Francisco: 360 Post Street
  Union Square
  San Francisco, CA 94108
  (415) 362-6160

  Films:
  Japan Program
  Commerce
  Rural Industries
  The Constant Threat
  5155
  Point of Entry

  Australia/New Zealand Program
  Royal Flying Doctor Service
  Outback Supply
  Teacher in the Sky
  The Ships That Flew
  Ringing True

  Europe Program
  Dam the Delta: Cartoon of Dutch Land Reclamation History

- **Clearinghouse on Developmental Communication**
  (Janice Stallard)
  1255 23rd Street, N.W.
  Washington, DC 20037
  (202) 862-1963
  Catalog available upon request.

  Films
  Southeast Asia Program
  The Rural Satellite Program: A Link to the Future
  The Basic Village Education Project: Guatemala
  Masagana 99: Promoting a Miracle

- **Council of Forest Industries of British Columbia**
  Suite 1500-1055 West Hastings Street
  Vancouver, BC V6E 2H1
  Canada
  (604) 684-0211
  Special ordering instructions for different countries. Not available in the United States. Can be obtained from regional offices in the United Kingdom, France, West Germany, Netherlands, Japan, and Australia.

  Films
  South Asia Program
  Come Winter, Come Harvest
  Yet the Forest Stands

- **German Information Center**
  (In the United States)
  Film Library
  950 3rd Avenue
  57th St., 24th Floor
  New York, NY 10022
  (212) 888-9840

  (In Canada)
  Embassy of the Federal Republic of Germany
  P.O. Box 379-A
  Ottawa, ON K1N 8V4
  Canada
  (613) 232-1101
  Catalog available upon request. No rental fee.
  Return postage required.

  Films
  South Asia Program
  The Forests Are Dying
  A Sea of Green
  When the Trees Die, My Soul Dies with Them

  Australia/New Zealand Program
  Nowlisten's Travels
  Time Flies
  August Borsig: Pioneer of Mass Transportation
  Roads, Roads, Roads
  Maschen: Marshalling Yard

- **Indiana Dunes National Lakeshore**
  Audio Visual
  1100 North Mineral Springs Road
  Porter, IN 46304
  (219) 926-7561

  Film
  Africa—South of the Sahara Program
  West Beach Pastorals

- **Indiana University**
  Audio Visual Center
  Student Service Building
  Bloomington, IN 47405
  (812) 335-2103
  Catalog available upon request.
  Rental plus postage

  Film
  Europe Program
  Land Use on the Flood Plains
  ($12.15 + postage)

5. Film and video resources (continued)

- **Intelsat (International Telecommunications Satellite Organization)**
(Mr. Tony Trujillo)
Audio Visual Library
3400 International Drive, N.W.
Washington, DC 20008-3098
(202) 944-6800
Limited catalog available. Color brochures.

  Films
  - Australia/New Zealand Program
    - *Intelsat: Peace Through Satellites*
    - *Satellites in the South Pacific*
    - *Raisting Earth Station: Germany*

- **International Air Transport Association**
IATA Building
2000 Peel Street
Montreal, PQ H3A 2R4
Canada
(514) 844-6311
Contact Director of Public Relations.

  Film
  - Japan Program
    - *Small World*

- **Japan Information Service**
Consulate General of Japan
Film and Video Library
Suite 950 E, Water Tower Place
845 North Michigan Avenue
Chicago, IL 60611
(312) 280-0403
Catalog of films and videos available. Application required prior to loan. Charge of $1.50 per item for postage and handling.

  Films
  - Japan Program
    - *Welcoming Technical Trainees from Abroad*
  - East Asia Program
    - *Profile of a Nation: Geography and Industry*
    - *Japan: An Overview*
    - *Agricultural Co-ops and Farm Life*
  - Europe Program
    - *Disaster Prevention*
    - *SABO: Erosion Control*

- **Modern Talking Pictures**
5000 Park Street North
St. Petersburg, FL 33709
(813) 541-5763
Catalog available upon request.
No rental fee, return postage required.

  Films
  - South Asia Program
    - *Acid Rain: No Simple Solution*
    - *To Catch a Cloud: A Thoughtful Look at Acid Rain*
    - *To Work with the Forest*
  - Soviet Union Program
    - *The Kingdom of Mocha*
    - *Hong Kong: Human Freedom and Progress*

- **Modern Talking Pictures (continued)**

  Films (continued)
  - Australia/New Zealand Program
    - *Tenn-Tom: A New Waterway for America*
    - *Waterways to Explore*
    - *Mercedes-Benz: The First Century*
    - *We Are the Parcel People*
    - *Committed to the Land*
  - North Africa—Southwest Asia Program
    - *Water*
  - Africa—South of the Sahara Program
    - *The Technology of Trash*
    - *Mining and the Environment*
    - *Westward Coal*
    - *Coal People: A Century of Pride*
  - Central and South America Program
    - *The Uprooted*
    - *The Dream: Brazil*
  - Europe Program
    - *Mount St. Helen's Eruption Recovery*

- **Netherlands Council General**
303 East Wacker Drive 3410
Chicago, IL 60601
Contact the Royal Netherlands Embassy in your country. Check for Consulate nearest your city.

  Films
  - Soviet Union Program
    - *The Netherlands for All Reasons*
  - Europe Program
    - *Dutch Delta*
    - *Easterscheldt*
    - *Flood of 1953*
    - *Netherlands: Struggle for Land*

- **U.S. Committee for UNICEF**
331 East 38th Street
New York, NY 10011
(212) 686-5522
Catalog available upon request.

  Films
  - North Africa—Southwest Africa Program
    - *Of Tides and Times*
    - *Nor Any Drop to Drink*
    - *Journey for Survival*
    - *Mare Nostrum*
    - *Water*

- **U.S. Department of the Interior**
Bureau of Reclamation
Room 7644
Washington, DC 20240
(202) 342-4662

  Films
  - North Africa/Southwest Asia Program
    - *Miracle of Water*
    - *The Great Web of Water: The Central Valley Project*

(Continued on page 56)

5. Film and video resources (continued)

- **Vision Habitat**
  (United Nations Centre for Human Settlements)
  York University
  4700 Keele Street
  North York, ON M3J 1P3
  Canada
  (416) 736-5377
  Contact for special ordering instructions.

  Films
  - Southeast Asia Program
    - *The Young Settlers* (Sri Lanka)
    - *They Call It Griha Pravesh* (India)
    - *Cissin* (Upper Volta)
  - Japan Program
    - *Growing Dollars*
  - East Asia Program
    - *Transmigration for a Better Life*
    - *Rakena*
    - *Resettlement of the Bedouins in Kuwait*
    - *A New Town for Aphrodite*
  - Central and South America Program
    - *A Dam and After*
    - *Malaysia: A Brighter Dawn*
    - *A Forest Village in Thailand*
    - *Migrations*
    - *Rakena*

Evolving from a television library begun in 1962, the nonprofit American-Canadian Agency for Instructional Technology (AIT) was established in 1973 to strengthen education through technology. AIT pursues its mission through the development and distribution of video and computer programs and printed materials in association with state and provincial education agencies. In addition, AIT acquires, enhances, and distributes programs produced by others. AIT programs are used in schools throughout the United States and Canada. The agency is based in Bloomington, Indiana.

Together...programming for today's learner

Printed in U S A